

THE
MEDICAL JOURNAL
OF AUSTRALIA

(With which "The Australasian Medical Gazette" and "The Australian Medical Journal" are incorporated.)

The Journal of the Australian Branches of the British Medical Association.

VOL. II.—8TH YEAR—No. 18. SYDNEY: SATURDAY, OCTOBER 29, 1921.

PRICE 1s.

Surgical Instruments

We are pleased to announce that good general stocks of our Surgical Instruments have arrived and that regular supplies are now coming forward. Members of the Profession are cordially invited to visit our Show Rooms.

Allen & Hanburys (Australasia) Ltd.

Instrument Makers to H.M. Army and H.M. Navy

AUSTRALASIAN BRANCH:

B.M.A. BUILDING : Elizabeth Street, Sydney

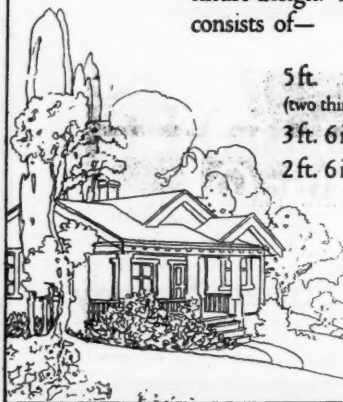


The "PHILLIPS" SUITE

We think it will be readily admitted that we have succeeded in the "Phillips" Suite in producing a design that is charming and beautiful. The note of simplicity has been faithfully sounded and anything like exaggeration avoided. The result is a Suite we are proud of, a distinct advance in furniture design. The "Phillips" is made in solid Maple, fumed and waxed, and consists of—

5 ft. WARDROBE
(two thirds hanger, one third shelves)
3 ft. 6 in. TOILET TABLE
2 ft. 6 in. WASHSTAND

£49/10



Beard Watson & Co. Ltd.
GEORGE STREET, SYDNEY.

DOUBLE
BEDSTEAD
to match
£10 15s.

THE MEDICAL JOURNAL OF AUSTRALIA

VOL. II.—8TH YEAR.

SYDNEY: SATURDAY, OCTOBER 29, 1921.

No. 18.

Table of Contents

ORIGINAL ARTICLES—	PAGE.	BRITISH MEDICAL ASSOCIATION NEWS—	PAGE.
A Simplified Sacral Proctectomy, by W. J. Stewart McKay, M.B., M.Ch., B.Sc.	365	Scientific	386
<i>Prostatisme sans Prostate</i> , or the Median Prostatic Bar, by S. Harry Harris, M.D., Ch.M. . .	368	Medico-Political	388
"Oxyuris Incognita" in Australia, by Glen H. Burnell, B.S., M.D.	374	Nominations and Elections	388
A Simple Levitation Method for the Detection of Hookworm Ova, by H. Hastings Willis, B.Sc., M.B., Ch.M.	375	The War Memorial Fund in Victoria	388
REPORTS OF CASES—		PUBLIC HEALTH—	
Three Cases of Cancer of the Pelvic Colon Complicating Gynæcological Operations, by Ralph Worrall, M.D., M.Ch., Q.U.I.	376	The Plague Outbreak	388
REVIEWS—		Notifiable Infective Diseases	389
Errors of Refraction	377	THE FOURTH CONGRESS OF THE FAR EAST ASSOCIATION OF TROPICAL MEDICINE . .	389
Powdered Vegetable Drugs	377	CORRESPONDENCE—	
NOTES ON BOOKS—		A Correction	390
Two Medical Dictionaries	378	Arnott's Biscuits	390
ANALYTICAL DEPARTMENT—		MEDICAL MATTERS IN PARLIAMENT—	
Antiphlogistine	378	The Tuberculosis Clinic at Bendigo	390
LEADING ARTICLES—		NAVAL AND MILITARY—	
The Amended Curriculum	379	Appointments	391
A Public Question	380	PROCEEDINGS OF THE AUSTRALIAN MEDICAL BOARDS—	
THE WEEK—		New South Wales	391
The Causation of Twin and Malformed Embryos .	381	Victoria	391
Adrenal Insufficiency	382	BOOKS RECEIVED	392
ABSTRACTS FROM CURRENT MEDICAL LITERATURE—		MEDICAL APPOINTMENTS	392
Dermatology	384	MEDICAL APPOINTMENTS VACANT, ETC. . . .	392
Radiology	384	NOTICE TO AUTHORS	392
		MEDICAL APPOINTMENTS: IMPORTANT NOTICE	392
		DIARY FOR THE MONTH	392
		EDITORIAL NOTICES	392

A SIMPLIFIED SACRAL PROCTECTOMY.¹

By W. J. Stewart McKay, M.B., M.Ch., B.Sc.,
Honorary Surgeon, Lewisham Hospital, Sydney.

KRASKE's operation of sacral proctectomy for the high removal of malignant growth in the rectum has always been regarded as one of the most difficult to perform in the whole range of surgery. When at Freiburg, thirty years ago, whither I had gone to see Hegar operate, Kraske, who was Professor of Surgery there, was kind enough to explain all the steps of his operation to me. When I returned to Sydney I tried the operation on two females; one lived, the other died. These cases convinced me that the operation, as carried out by Kraske, was not for amateur surgeons and so I did not tackle another case with confidence until Quénu brought out his modification. Then, in the course of years, I did ten operations by the Quénu method without a death. In the last twenty years I have tried various ways to remove the rectum with some of the sigmoid and now I have evolved an operation of my own that has reduced the operation to comparative simplicity, for while the original Kraske used to take me over two hours to get through and the Quénu one hour and a half, I am

now able to finish all the steps, until I start to tie off vessels and to sew up, in thirty minutes.

I have tried Ernest Miles's beautiful operation, which, I think, is one of the most perfectly worked out operations in the whole range of surgery. It has one great advantage, that we are able to insure that the inferior mesenteric artery can be tied in the proper place, immediately below the origin of the first sigmoid branch. We all know that gangrene of the stump of the bowel that is brought down to the perineum, may occur when the operation is performed by the sacral route, either from anatomical causes or from tension which arrests the circulation. In spite of these facts—I look upon the gangrene as a mere trifle—I still think that the sacral method which I am about to describe is so free from shock that this one fact alone outweighs all other considerations. We must remember that the subjects of this operation are generally people advanced in years and to submit them to an abdominal operation which lasts about an hour and then to the sacral procedure, means a very considerable amount of shock. I claim for my operation that it is almost bloodless and that shock is reduced to a minimum, because the essential stages can be performed in thirty minutes; the tying off of vessels and sewing up occupying a similar time.

As my experience may be of some use to the younger generation of surgeons, I shall endeavour

¹ Read at a meeting of the New South Wales Branch of the British Medical Association on July 29, 1921.

to outline the steps that I follow; but I admit at the outset that to make the description clear without the aid of illustrations is a very difficult task.

In the first place, I always do an inguinal colostomy two weeks before I attempt the sacral step. I have adopted this plan during the last twenty years and I was much surprised, when visiting the Mayo Clinic twelve years ago, to find that William Mayo never did a preliminary colostomy. I can hardly flatter myself that I convinced him he was wrong; but the fact remains that during the last ten years he has become a very warm advocate for a preliminary colostomy in these operations.

I take the opportunity during the section to ascertain the extent of the growth and, if I find that the growth has spread out of the bowel, as I did a few weeks ago when operating on one of Dr. Veech's patients, I do not go on with the sacral portion of the operation. As far as the colostomy is concerned, I cut the bowel through at once and fix both ends in the wound. I do not close the proximal opening of the lower bowel, as I use this for irrigating the sigmoid and rectum. It is quite wonderful how a patient, who has suffered from a malignant obstruction, will improve during the time that elapses between the two operations. If the patient is an elderly man, with hard arteries and with an intermittent pulse, he is treated with a course of nitro-glycerine, a drug which has been of great service to me for many years, both before and after all operations.

Two weeks after the colostomy the patient is anaesthetized by the intra-tracheal method and turned on his left side and fixed there in a position very similar to Sims's.

Steps of the Operation.

(1) The first step is to close the anus by running a strong silk purse-string suture round it; the ends are left long and serve as retractors. At one time I used to distend the rectum with gauze, but I do not think this is of any moment.

(2) The incisions are made in a similar way to those employed by Miles in the perineal portion of his abdomino-perineal operation for cancer of the rectum. A 12.5 cm. cut is made across the lower part of the sacrum. Another incision begins in the mid-line of this cut and runs forward for a few centimetres and then is carried round the anus in a circle about 2.5 cm. distant from the centre of the anus.

(3) The operator now goes back to the transverse cut and deepens it and proceeds to dissect off the tissues from the lower portion of the sacrum and the whole length of the coccyx; at the same time he loosens the gluteal flaps, by rapidly dissecting on either side of the mid-line incision. Gauze is now fixed to all the edges of the incision by instruments or silk sutures.

(4) The next step is to remove the coccyx. To do this I employ an ordinary carpenter's chisel, 2.5 cm. wide, and cut across the lower part of the sacrum, quite close to the sacro-coccygeal articulation, inclining the cut up on the right side of the sacrum. Most operators take more off the left side; as a matter of fact, very little of the sacrum need be removed. A few hits with a mallet and the chisel cut

is made. Care must be taken not to go right through the whole thickness of bone, else the middle sacral vessels will be severed and the field will be obscured with blood. It is better, therefore, to break the bone away after the chisel cut is made and to try to secure the vessels in the mid-line, inserting a ligature with a curved needle.

(5) The coccyx, having been seized with the lion forceps, is torn away and you come to the dense connective tissue covered by it and also by the sacrum. Take notice that this is the *fascia propria recti*; it can be readily detached from the sacrum and, when pushed forward, goes with the rectum, which it ensheaths. Note that it is attached to the lower border of the sacrum and when the fascia is stripped off, the sacral vessels in the mid-line are left behind. It is absolutely essential to remember all these facts about the *fascia propria*, because no further progress can be made until a transverse cut is carried across this dense connective tissue. As soon as the incision is made, the index finger is slipped in and worked about on either side of the bowel in the postero-lateral rectal spaces.

(6) This region may now be left for the present. Next seize the long silk peri-anal sutures with a pair of large forceps and pull on the anus and then take a pair of blunt-pointed scissors and deepen the incision all round the anal circle. When branches of the inferior hæmorrhoidal arteries spurt, it is best to apply long-bladed forceps parallel to the mid-line, seizing the surrounding fat each time, so that no time is wasted in trying to pick up single vessels. The operator continues to deepen his incisions all round the anus and the lower part of the rectum and in the middle line backwards towards the coccyx region. Then he returns once again and goes still deeper through the tissues about the central point of the perineum; at this stage, if the patient be a male, it is well to pass a sound, so that the bulb of the penis will not be wounded.

(7) Having gone to a depth that brings the operator down to about the superficial layer of the triangular ligament, the dissection may cease in this region for a time and the operator then turns back to deepen his dissection on either side of the middle line. This is continued until he comes down on the *levator ani* muscles on either side. The next step is to go back to where the transverse cut is made across the *fascia propria recti* (step (5) above), in order to deepen the transverse cut on either side and by this means the *coccygei* muscles are divided on either side, the incision extending out as far as the great sacro-sciatic ligaments. With a scissors it is then easy to dissect away any tissues that hide the *levator ani* muscles on either side of the middle line incision.

I had the good fortune to discuss the anatomy of this stage of the operation with my friend, Dr. Darling, whose knowledge of practical anatomy is something to be envied. He impressed on me the fact that the *coccygeus* muscle is a very poor thing, almost only a membrane; if the surgeon knows this, he will not hesitate to burrow his way in at this stage and hook his index finger forward, so that it comes to lie on the superior (pelvic) surface of the

levator ani, which muscle or series of muscles, together with the *coccygeus*, forms the diaphragm of the pelvis. But it is not a robust muscular diaphragm, as the illustrations in anatomy books would lead you to suppose; it is a poor thing when you come to seize it with a long pair of flexible Doyen forceps.

(8) Again the operator turns to the perineum. The object of moving about like this is to keep on deepening the whole length of the wound. The silk sutures having again been seized with the left hand, the bowel is pulled well back towards the sacrum, while the surgeon, with a piece of gauze in his right hand, proceeds to push and burrow in between the bowel and the prostate. This is usually easily done, if we remember to push the bowel back from the prostate, not the prostate from the bowel. If the growth has gone through the anterior wall of the bowel, it will be necessary to dissect away the capsule of the prostate. In the female the bowel strips off the vagina very easily, provided the proper stratum is struck. In pushing the bowel back from the prostate, some of the fibres of the *levator ani* (pubo-prostatic fibres) are torn through and then the area where the *vas deferens* and seminal vesicles lie, is reached; but these are placed on either side of the median line. After a little more burrowing in the mid-line the operator finds that he has tumbled into the peritoneal cavity; the peritoneum is usually found reflected off the base of the bladder about 2.5 cm. from the prostate.

(9) This region is then abandoned and the operator turns his attention to the *levator ani* muscles. If the incisions have been deepened sufficiently on either side of the median line, as described above, the dividing of the *levator ani* muscles will present no difficulty. The easiest way to do this is to pull on the silk sutures attached to the anus with the left hand and then to burrow the right index finger from the prostatic region back towards the transverse cut that was made to divide the *coccygei* muscles, at the stage where the finger was pushed through the pelvic diaphragm [step (7)]. The finger then comes to lie on the upper (pelvic) surface of the *levator ani* muscle on the right side; as soon as the burrow is large enough, a long flexible pair of hysterectomy forceps is taken and one blade is pushed up the burrow parallel to the mid-line, while the other blade is below the muscle. The forceps being closed, the *levator* is severed from the bowel by scissors and, if not then altogether free, another pair of forceps is put on towards the sacral region. The same is done on the left side. At once the bowel is obviously freer in every way, but if the operator thinks that, by pulling on it he can make it descend, he will be disappointed; why we shall see presently.

(10) The surgeon has now reached the stage where the inexperienced one usually gets stuck up, because he fondly imagines that once both *levatores ani* are severed that the bowel will descend, but he must understand the one important fact about this operation and that is, that it is the lateral ligament attached to either side of the rectum that keeps the bowel from coming down. Unfortunately, the text-books do not bring out this fact properly

and so this stage has always been the *bête noire* of the operator.

It is difficult to understand the lateral ligaments of the rectum, unless a dissection has been made from above; I must confess that I did not fully appreciate their importance in holding up the bowel until I came to perform the beautifully worked out operation of Ernest Miles—one of the masterpieces of surgery—and so I cannot do better than copy his description of the ligaments. He supposes that we are attacking them from above through an incision made in the abdominal wall. He says:

These are well-developed vertical bands of dense connective tissue, having their origin in the recto-vesical fascia and extending from the lateral aspects of the rectum obliquely forwards and outwards towards the base of the bladder. Each band is from one and a half to two inches in depth and very strong. . . . In the substance of these ligaments the middle hæmorrhoidal artery is contained and must, of course, be divided. As a rule, the artery is quite small and seldom requires a ligature. Occasionally I have seen free bleeding from it, but this is easily controlled.

Miles points out that, during the division of the left lateral ligament, the left ureter should be carefully protected from injury.

But these lateral ligaments are not being attacked from above. They are being attacked from below and in a very confined space. The right ligament is dealt with first. The bowel is pulled well down to the left of the mid-line and the right index finger is inserted through the opening in the peritoneum and, then, by pushing up the tissue at the side of the bowel, one will be able to define the position of the ligament and insert some strong (No. 3) catgut ligatures 12.5 mm. away from the side of the bowel.

It may be quite true what Miles says, that the branches of the middle hæmorrhoidal artery in these ligaments are small, but if they are divided without first passing some ligatures, we may get very troublesome hæmorrhage and, what is more to the point, it may be very difficult to pick up the bleeding points. So, then, each ligament should be carefully tied off throughout its whole length on either side. The left side may be more difficult to get at than the right and it is for this reason that many operators have designed their bone cut so that a considerable part of the left side of the sacrum is removed. This, however, is unnecessary. The left ureter runs close to the left lateral ligament, so it must be guarded.

(12) As soon as these lateral ligaments are cut through, our chief difficulties are ended, for we have no trouble in separating the posterior surface of the bowel from the concave face of the sacrum and then the bowel descends with a run after a few snips at the peritoneum. All that one has to do then is rapidly to ligature off all the vessels that have been caught up throughout the incision; a few sutures are inserted to close the opening into the peritoneal cavity and the sides of the wound brought together with catgut and the skin closed with silk, a gauze iodoform drain being applied.

The bowel is then fixed to the skin close to the sacrum and cut off at a spot about 5 cm. or more proximal to the growth.

This operation is wonderfully successful and, during the last twenty years, I must have per-

formed it and the Quénu operation over twenty times with only one death; that took place a few months ago. The patient was an old, thin man and the operation went so well that I had reached the stage where I begin to tie off the vessels and sew up after only twenty-five minutes' work. The patient was placed back in bed with a normal pulse, but, thinking that I would help him, I gave him an intravenous injection of gum-water. This quite upset his pulse and he died suddenly about eighteen hours after the operation; I am sure the gum injection killed him.

The abdominal anus is easily managed and I have one patient alive now on whom I operated twenty-three years ago.

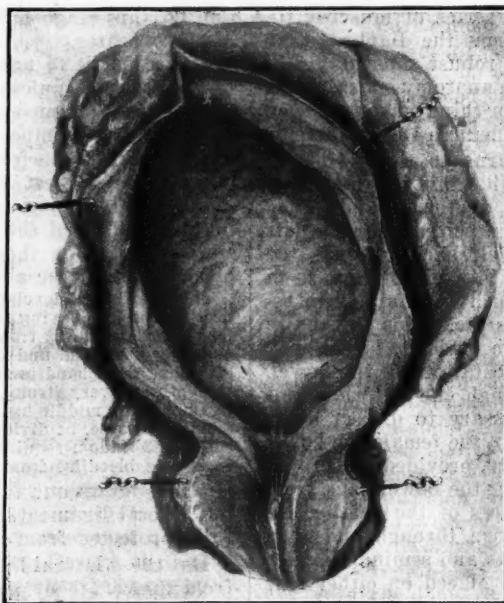


FIGURE I.
Showing the Normal Bladder Cavity, Trigone, Vesical Orifice, Urethra and Prostate. (After Randall.)

PROSTATISME SANS PROSTATE, OR THE MEDIAN PROSTATIC BAR.¹

By S. Harry Harris, M.D., Ch.M. (Syd.),
Honorary Urologist to the Lewisham Hospital; Honorary
Urologist to the South Sydney Women's Hospital.

THE controversy which raged for so many years concerning the relative merits of the suprapubic

¹ Read at a meeting of the New South Wales Branch of the British Medical Association on July 29, 1921.

secutive cases of this malady treated within the past four and a half years.

The importance of this condition will be evident when it is stated that these cases formed nearly 20% of the total number of cases of prostatism seen during the four-and-a-half-year period.

No consideration will be given here to various other important conditions, *e.g.*, congenital valve-formation or congenital stricture of the posterior urethra, etc., the symptoms of which may closely simulate prostatism.

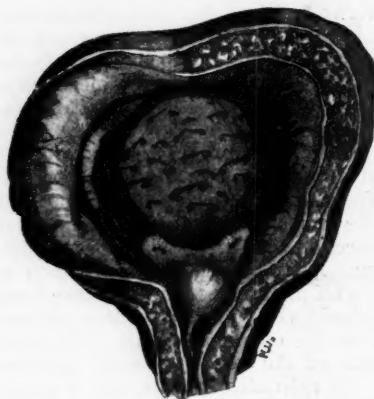


FIGURE II.
Post Mortem Specimen. Glandular Bar, showing adenomatous growth of Albarran's group of glands projecting partly into the bladder, but chiefly into the prostatic urethra. Note the enormous muscular hypertrophy and trabeculation and the orifices of two large diverticula.



FIGURE III.
Post Mortem Specimen. Glandular Bar, showing a condition further advanced than Figure II, and forming what is often mis-called the middle lobe of the prostate. No enlargement of lateral lobes of the prostate in this or in the previous figure.

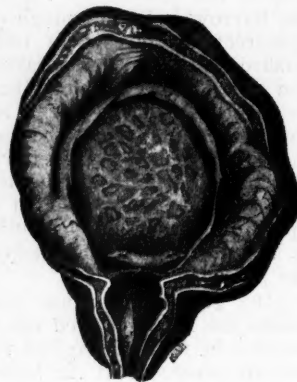


FIGURE VI.
Post Mortem Specimen. Median Fibrous Bar. Note the hypertrophy of the bladder walls and the trabeculation.



FIGURE IV..

Suprapubic Prostatectomy Specimen, showing a median glandular bar implanted on the surface of a true middle lobe of the prostate, associated with well-marked lateral lobe hypertrophy. (Natural size.)

Embryology.

The human prostate begins to develop at the third intra-uterine month from five separate epithelial out-growths from the posterior urethra. These tubular elements form the five different lobes of the prostate, viz., the anterior, posterior, middle and two lateral lobes. The anterior lobe generally atrophies about full term, though sometimes it persists and even becomes the seat of adenomatous growth in later years. The posterior lobe is separated from the other lobes by a somewhat firm layer of connective tissue carrying the ejaculatory ducts. The other lobes of the prostate, though of separate origin, normally coalesce without any line of demarcation.

There is a group of tubules — the so-called subcervical group of Albarran—which begins to develop at the fourth in-



FIGURE V..

The same as Figure IV.. Antero-Lateral View, showing the glandular bar peeled off the underlying middle lobe of the prostate.

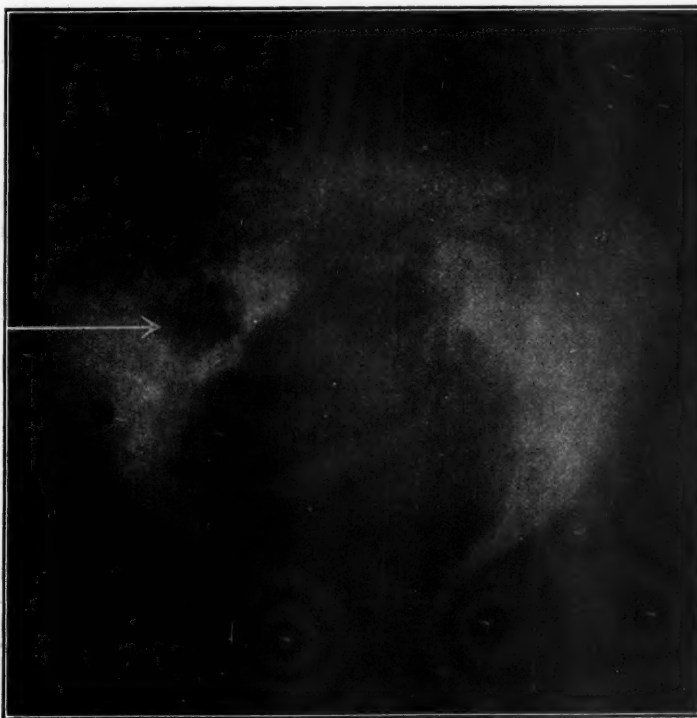


FIGURE VII..

Skiagram Showing a Diverticulum of the Bladder and Trabeculation. The bladder was filled with 20% sodium bromide solution.

trauterine month. They grow back just below the mucous membrane of the posterior urethra and within the sphincter. These are of considerable surgical importance, since the researches of Lowsley have shown that they become enlarged in 25% of men over 30 years of age. They form a very common type of tumour at the bladder neck.

Pathology.

Three definite types of median bar formation may be recognized.

(i.) The glandular bar. This, in my experience, is the most common type. It occurs as the result of an adenomatous overgrowth in the

subcervical group of glands.

In the earliest stage it may be recognized as a localized pyriform tumefaction in the posterior segment of the bladder-sphincter and prostatic urethra and later as a definite projection of similar shape (see Figure II.), the broad end, which is uppermost, jutting up into the bladder and prostatic urethra. Still later, by reason of sphincteric action, it may be projected bodily upwards into the bladder and form one type of so-called middle lobe of the prostate (see Figure III.).

This type of growth is wholly within the vesical sphincter and differs therein from true middle lobe of the prostate. The latter is part of a general prostatic hypertrophy and, in its typical form, grows up below the trigone and outside the bladder sphincter. Very frequently after the sixth decade and but rarely before this, the two types of growth are associated, the enlarged subcervical group being implanted on the surface of the enlarged middle lobe (see Figures IV. and V.), or, when this is absent, lying on the enlarged lateral lobes, superficial to the posterior commissure. This association occurred in 84 of 100



FIGURE VIII.
Dilated Ureter. Skiagram taken after injecting the bladder with sodium bromide solution, which found its way into the dilated ureter.



FIGURE IX.
Same Case as Figure VIII., Showing Dilated Calices of Kidney.

consecutive prostates removed by me and examined for this purpose.

The subcervical type of growth rarely, in my experience, exceeds the size of a six-penny piece and then only when the two types are associated. From a practical point of view, the most important difference between the two lies in the fact that the glandular bar, especially before the sixth decade, commonly occurs without any associated adenomatous change in the lateral lobes of the prostate, whereas the middle lobe of the prostate is rarely, if ever, alone involved.

The former can therefore frequently be removed leaving an intact prostate and vesical sphincter, the latter seldom, if ever.

The median glandular bar, even when quite small, is liable to cause marked urinary obstruction of the ball and socket type.

(ii.) The fibrous bar is a type of abrupt dam stretched more or less taut across the vesical orifice, of which it forms the posterior lip. It is composed of firm, dense, sclerotic tissue, the edge of which is sometimes sharp and narrow (Figure VI.), sometimes broader and more rounded.

The lateral terminations form a sharp angle with the lateral walls of the bladder outlet. There is often a deep cave below the bar, as though there were a crease in the urethra in this situation. The *verumontanum* is thus in some cases drawn close up below the bar, with the result that the space between the vesical neck and the *verumontanum* is considerably foreshortened.

This bar, on microscopical section, shows a very definite fibrous hyperplasia, with occasionally some muscular tissue incorporated with it. It is due, I believe, to a fibrous degeneration of the muscle of the sphincter in this position. The rest of the prostate, as a rule, presents but little variation from the normal.

(iii.) The collar type of obstruction falls in a somewhat different category to true bar formation, but is considered here for the sake of completeness. It may be a development of the previous type, or more probably occurs as a primary condition. It presents as a circumferential fibrous deposit around the sphincteric orifice, causing contracture of the vesical outlet. The rest of the prostate in such cases is sometimes but slightly removed from the normal, either to the touch or eye, though in most cases it shares in a general fibrous change, which is probably of the nature of a true senile degeneration. This is the so-called "small fibrous prostate," a condition which, it is so commonly and erroneously stated, demands perineal, as opposed to suprapubic, prostatectomy. It is intimately incorporated with its fibrous capsule. It is neither susceptible of, nor does it require, enucleation.

In this, as also in the previous type, the incidence of inflammatory oedema of the prostate itself or

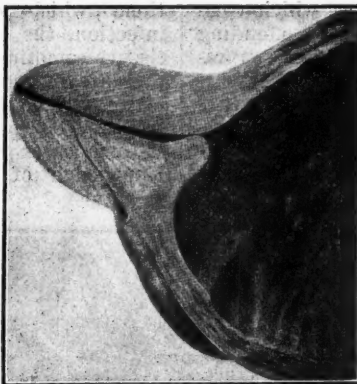


FIGURE X.
Showing Obstructive Bar at Neck of Bladder. (After Young.)

peri-prostatic tissues, as a result of instrumentation or other cause, may temporarily obscure the primary condition.

Chronic prostatitis but rarely presents itself as a small, hard prostate and can practically always be cured by massage. Should this fail, a deliberate perineal excision of the offending gland is indicated. The symptoms in such cases are not characteristic of prostatism and treatment is sought for quite other reasons.

Symptomatology.

The symptoms are all those commonly associated with general prostatic hypertrophy, though they are prone to conform to an irritative rather than an obstruc-

tive type. Thus, frequency, often intolerable, especially at night, is generally present and the frequency may, or may not, be associated with pain, particularly at the end of the penis. It is more commonly the cause of complaint than actual difficulty, though the existence of the latter will generally be elicited on careful questioning. On rectal examination no prostatic enlargement is found, unless there be some super-added oedema of the prostate itself or of the peri-prostatic tissues. Hence the appellation, "*Prostatisme sans Prostate*," of the French.

The age at which it occurs, as might be expected, is distinctly earlier than is the case with general prostatic hypertrophy.

In the present series of 56 patients, two were between the ages of 25 and 30; ten were between 30 and 40; fifteen were between 40 and 50; seventeen were between 50 and 60; nine were between 60 and 70; three were between 70 and 80.

Associated Lesions.

Six patients had, in addition, vesical calculi. In four of these I had previously performed a lithoto-

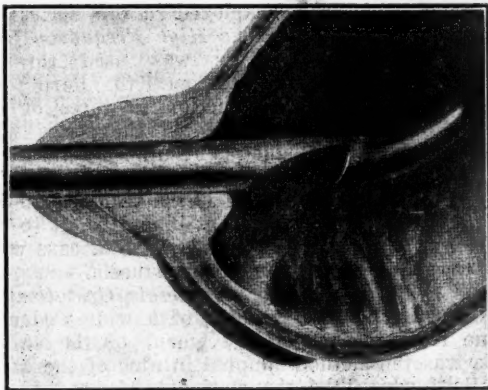


FIGURE XI.
Punch Instrument Introduced into the Bladder, cutting inner tube withdrawn, allowing fluid to escape, showing that the instrument is in the bladder. (After Young.)

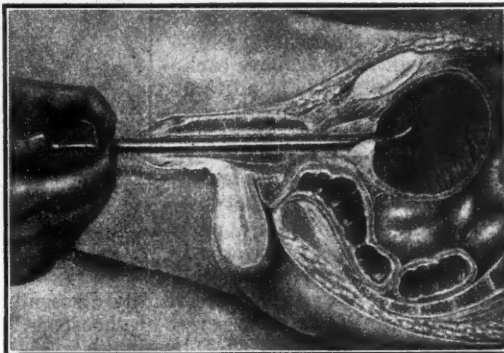


FIGURE XII.
Instrument Withdrawn Until the Median Bar is Entrapped in the Fenestrum, when the inner cutting tube is quickly pushed inward to excise the bar. (After Young.)

paxy without relief of the symptoms, which completely disappeared after removal of the offending bar by the prostatic punch. In two others suprapubic lithotomy had been performed by other surgeons without relief. One of these was 74 years of age and had had a large number of calculi removed twelve months previously. He was in a very bad condition with a septic and dilated urinary tract and multiple diverticula of the bladder (see Figure VII.). The punch operation, under local anaesthesia, afforded him complete local relief, which has lasted now for nearly four years.

Two patients had as outstanding symptoms recurrent attacks of renal colic and haematuria. Each was proved to have a dilated ureter and pelvis on the painful side (see Figures VIII. and IX.). The bladder in each case was trabeculated and contained respectively 120 c.cm. to 180 c.cm. of residual urine. Complete relief of symptoms followed removal of the causative bar.

Another patient, a uræmic man, 72 years of age, in addition to a dilated heart, had intolerable pain and frequency. The punch operation was done under local anaesthesia. He obtained complete relief of symptoms for ten months, when, as his medical attendant informed me, he died of apoplexy.

One patient, *ætas* 52, not included in this series, admitted to hospital in a comatose condition, died within 24 hours without regaining consciousness. *Post mortem* examination revealed that death resulted from a dilated septic urinary tract. The bladder (see Figure II.) was extraordinarily thickened and trabeculated and contained numerous abscess cavities within its walls. There were two large diverticular orifices, one above each ureteral meatus. The condition originated from a small glandular bar. Unfortunately, no previous history was obtainable.

Diagnosis.

This rarely presents any particular difficulty to the practised cystoscopist, as the pathological appearances above described are readily discernible to the examining eye. The cysto-urethroscope in this regard is, in my experience, invaluable.

The possibility of associated lesions in the urinary tract should receive the most careful attention, as they may require preliminary, simultaneous or subsequent treatment to obtain the desired result.

There is one important detail, previously men-

tioned, which requires emphasis. In the presence of infection, the prostate itself or the peri-prostatic tissues sometimes become markedly oedematous and present, on rectal examination, a condition which may easily be mistaken for general prostatic hypertrophy. The preliminary treatment which is given in such cases results in subsidence of the oedema. Knowledge of the possibility of this condition should be sufficient to insure its recognition.

Treatment.

This resolves itself into the removal of the obstruction and the treatment of any associated lesions.

These patients, when necessary, should receive the same careful preparation for operation as is given prostatics in general. In many of the patients in this series the conditions at the time of cystoscopy were so favourable that the immediate removal of the obstruction by the prostatic punch was permissible. This materially shortened the stay in hospital, which, in many cases, was only ten to twelve days in all.

When, on cystoscopic examination, it was decided that open operation on the obstruction was necessary, this was done at a subsequent sitting.

Whilst it would, of course, have been possible, though frequently hazardous, to have submitted all of these patients to open operation, no one in this series was so operated upon, except when more conservative methods were deemed inadvisable.

Several patients weathered the punch operation under local anaesthesia on whom any open operation would have been fraught with grave risk.

Three methods of operation were employed in this series:

(i.) *The High Frequency Current.*—This was used through the cystoscope to burn out the obstruction in three of the earlier cases of the series with satisfactory results. It was abandoned solely on account of the number of burns required and of the fact that it is difficult to employ it in this class of case without general anaesthesia.

(ii.) *Suprapubic Cystotomy.*—

This operation, with removal of a wide wedge of tissue from the posterior segment of the vesical neck, was the method adopted in nine of the cases, in all of which the obstruction conformed to the "collar" type. In such cases it is only with the greatest difficulty that the tip of the index finger can be forced into the prostatic urethra. It is, I think, important that this should always be done.

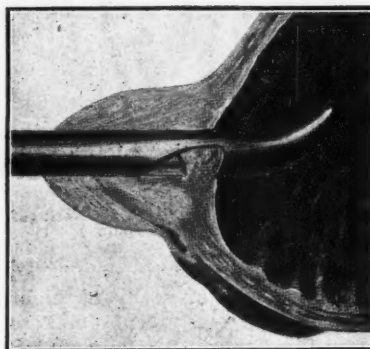


FIGURE XIII.
Cutting Tube Half Way Through the Median Bar. (After Young.)

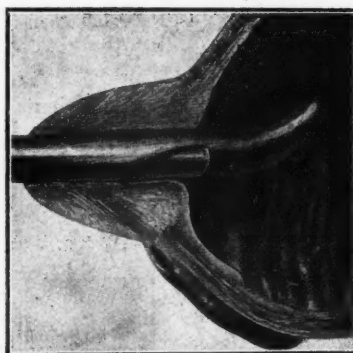


FIGURE XIV.
Cutting Tube Pushed Home, completely excising bar. (After Young.)

It greatly facilitates the subsequent removal of the large wedge, which is necessary to secure a permanent result. A finger in the rectum, to make counter-pressure, is a great aid in this manoeuvre.

This operation is preferable to the punch in this type of case, as it is difficult in these circumstances to remove with the punch sufficient of the dense cicatrix which surrounds the vesical neck. The only known unsatisfactory results obtained by the punch in this whole series were in three such cases. Of these patients, one refused further treatment and the other two were subsequently submitted to the above operation with satisfactory results.

(iii.) *Young's Prostatic Punch.*—This was employed in forty-four of the cases. This instrument is provided with a urethroscopic light attachment. My own preference is to make a diagnosis by the cysto-urethroscope and to employ the punch with a finger in the rectum. It is quite a simple matter to feel the *fenestrum* on the convexity of the instrument. The obstruction is then pushed well up into the *fenestrum* and the hollow knife pushed home (see Figures X. to XVI.). This technique is, I believe, a valuable modification of the original Young method. It is in my hands, at any rate, far easier by this means to make a clean sweep of the obstruction. It is followed by less bleeding and probably by better end results.

As many cuts are made as are necessary for the complete removal of the obstruction. This is readily appreciated by the finger in the rectum.

The bladder should contain about 180 c.cm. of distending medium.

This operation is, comparatively speaking, a minor procedure, is very rapidly performed and can be done with local anaesthesia when indicated.

Confinement to bed for at least seven days after operation is insisted upon.

Complications of the Punch Operation.—The only immediate noteworthy complications, as I have seen them, are hæmorrhage, retention of urine and epididymitis.

Hæmorrhage of greater or less degree occurs, of course, in every case. In only three of the forty-four cases of this series was it sufficiently serious to demand operative treatment. In each instance a gradually increasing mushroom-shaped clot formed at the site of operation. This caused retention of

urine, which catheterization and even a Bigelow's evacuator were unable to overcome. It was deemed wise to open the bladder suprapubically and to insert a catgut suture through the vesical neck at the site of bleeding. All the patients recovered without further trouble.

In most cases the hæmorrhage was scanty and disappeared on the third or fourth day, with occasionally a mild recrudescence later, especially if too much latitude were allowed the patient. All, as a routine, are now confined to bed for at least seven days after operation or for at least three days after all bleeding has ceased.

Retention of urine is a quite frequent immediate post-operative complication. Watchfulness in this regard is essential. The early recognition of a distended bladder and the prompt insertion of a retained catheter for 24 or 36 hours will, I believe, reduce the number of troublesome hæmorrhages to the vanishing point.

Epididymitis occurred on the tenth day in one patient, on the twelfth day in one other.

So far as is known, there was no case of remote epididymitis, as sometimes occurs after prostatectomy.

The scrotum is always kept well suspended on the abdomen after operation as a precautionary measure.

After Results.

The after results of the punch operation in all these patients, so far as it has been possible to trace them, have been satisfactory, with the three exceptions noted above. No patient has returned with a recurrence of symptoms. There seems to be no valid reason why the result should not be permanent, as in the glandular bar cases the entire glandular "rest" is removed and in the case of fibrous bars sufficient tissue is removed to leave, at any rate, a widely gaping orifice. The operation is quite useless in the presence of associated middle or lateral lobe enlargement, however small.

Summary.

(a) Prostatic symptoms frequently occur without enlargement of the prostate, which may indeed be smaller than normal.

(b) In many such cases the symptoms are due to a localized obstruction or bar at the vesical neck.

(c) Enucleation of the prostate in such cases is unnecessary and impossible.

(d) The prostatic punch affords a simple, safe and satisfactory means of *restitutio ad integrum*.

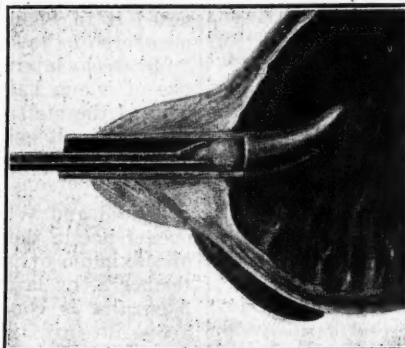


FIGURE XV.
The Excised Bar Grasped in Tube with Forceps previous to removal. (After Young.)



FIGURE XVI.
Result After Excision of Bar. (After Young.)

(e) The punch operation can be performed with safety in cases where open operation would be fraught with grave risk. There was no mortality in the forty-four cases of this series.

(f) The after results of the punch operation, in properly selected cases, compare more than favourably with those of similar cases treated by open operation.

Finally, the fact that glandular bars occur so frequently without middle or lateral lobe hypertrophy in men below the age of 60 and in later years are so generally associated with them, viz., in 84 out of 100 consecutive prostatectomies performed by me, is, to my mind, highly suggestive of cause and effect? Have we not, therefore, in the punch operation a means whereby we not only relieve present distress, but eradicate, once for all, what is probably a very common exciting cause of future trouble?

"OXYURIS INCOGNITA" IN AUSTRALIA.¹

By Glen H. Burnell, B.S., M.D.,

Assistant Director, Australian Hookworm Campaign, Brisbane.

THE purpose of this note is to set on record the occurrence in Australia of a recently discovered nematode infection of man. It was first described by Kofoid and White in the *Journal of the American Medical Association*, issue of February 22, 1919. In examining troops in America for hookworm disease, they noted the presence of a previously undescribed nematode ovum in 429 of a total of 140,000 soldiers examined. They described it as follows:

This ovum is the largest ovum of intestinal worms encountered in human stools. Its dimensions average 95μ by 40.2μ , with a ratio of length to diameter of 2.4:1. It is extraordinarily variable in size and proportions, its length ranging from 68μ to 133μ and its diameter from 33μ to 43μ This new ovum is characterized by two marked diagnostic features that clearly distinguish it from other nematode ova of man. The first is a broad concavity on one face, usually concealed by the position of the ovum when floating on brine, so that it appears only as a flattening on that face. The other feature is the presence of two highly refractive hyaline, bluish-green globules flattened asymmetrically at the two poles of the embryo. They are sometimes combined in one large lateral or polar globule or are broken up into smaller moieties. They are dispersed as development proceeds.

The larva partakes of the colour of the globules. The egg is a broadly rounded asymmetrical ellipsoid, with

clearly defined double contoured eggshell, similar to that of the hookworm.

They found that the eggs were usually in the late morula to coiled larval stages. Kofoid and White tentatively assigned this species to *Oxyuris* as *Oxyuris incognita*, sp. nov., pending the discovery of the adult stage.

As far as the writer knows, the ovum was first recognized in Australia by Dr. W. A. Sawyer, who noted it in September, 1920, in the stools of two members of the same family in Brisbane and again a few weeks later in two members of another family, one of whom had hookworm disease. Other members of the staff of the Hookworm Campaign have noted it in Rockhampton, Papua and Brisbane, 57 specimens having been found in Brisbane in a total of 12,539 persons examined.

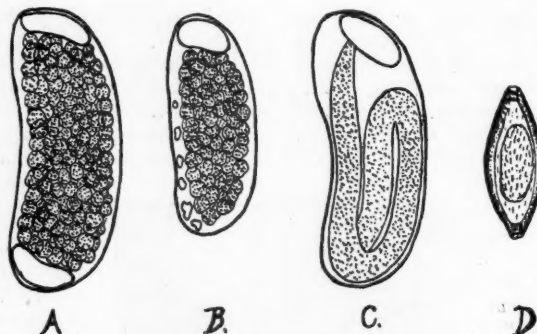
Kofoid and White noted a very marked seasonal occurrence in the appearance of the ova, the period of maximum oviposition being from July 28 to September 8, or later in the summer. Experience in Australia is consistent with this, for during the above investigation for hookworm disease in Brisbane, extending from January 24 to April 18, 1921, of the 57 persons who were found to be infected with *Oxyuris incognita*, 52 were discovered in the first four weeks, i.e., up to February 21, while in the remaining eight weeks only five cases were seen.

An attempt was made to infect two rabbits with the parasite. Repeated faecal examinations having established the absence of any ovum resembling that of *Oxyuris incognita*, the rabbits were fed for seven days on food contaminated with faeces known to contain the ova. The attempt was unsuccessful, in that examinations extending over several months failed to reveal any similar ova in their stools. Kofoid and White record unsuccessful attempts to hatch the eggs at varying temperatures and in various

media and they were unable to obtain the adult worms by any method of treatment. They did not establish any relationship of occupation, place of residence or food contamination to infection.

They conclude that "it seems probable, but not proved till the adult is found, that these ova come from an oxyuris parasitic in, but perhaps ill-adapted to man, with marked seasonal limitation in oviposition."

The probable reason why this ovum has been so long overlooked is because the ova are usually few in the stool and are liable to be missed, unless some method is employed for concentrating ova in faeces, such as the Kofoid-Barber brine-flotation-loop



"OXYURIS INCOGNITA."

- "A": Common Type, showing the concavity on one face and the two polar globules.
 "B": Variation in Size; in this case one of the polar globules has broken into numerous small fragments.
 "C": An Ovum Containing a Coiled Embryo.
 "D": Ovum of *Trichuris trichiura*, drawn to the same scale as "A," "B" and "C" for purposes of comparison.

¹ The work on which these observations are based, was done with the support and under the auspices of the Commonwealth of Australia, the State of Queensland and the International Health Board of the Rockefeller Foundation.

method.¹ Even with this method only two or three are usually seen in one slide.

The accompanying plate shows the various characteristic features of the ovum.

A SIMPLE LEVITATION METHOD FOR THE DETECTION OF HOOKWORM OVA.²

By H. Hastings Willis, B.Sc., M.B., Ch.M. (Syd.),
Medical Officer in Charge of Field Unit No. 4, Australian
Hookworm Campaign, Townsville, Queensland.

A SIMPLE, rapid and accurate method of detecting hookworm ova in human faeces is necessary for the satisfactory conduct of a hookworm campaign and also for the scientific treatment of hookworm disease by the family practitioner. In the past the medical practitioner has been precluded in the majority of cases from making anything but an admittedly unsatisfactory diagnosis from clinical signs and a clinical test of cure by reason of the special equipment necessary for a laboratory diagnosis, whilst medical officers engaged in campaign work, while working in highly infected and new areas, have found the combined plain smear and centrifuge method adequate for their purpose.

The plain smear method, as its name suggests, consists of the examination by low power magnification (100 times) of three films, made by mixing a small portion of the specimen of faeces in a few drops of tap water on slides measuring five by seven and a half centimetres. The centrifuge method consists of similarly examining the deposit obtained by centrifuging for five minutes the supernatant fluid of a mixture of faeces with ten times its volume of tap water. The mixture is thoroughly stirred in a metal cone and allowed to sediment for two or three minutes before the supernatant fluid is poured into the centrifuge tube. The combined method consists of examining by the centrifuge method those specimens found negative by plain smear.

A comparison of microscopical findings with clinical signs and family histories and subsequent re-examination of suspected cases leads me to believe that the combined method, as described above, fails to discover a considerable proportion of light infections. Darling³ has also brought forward evidence from Brazil which points to the same conclusion. Moreover, the time has now come in Australia when a more accurate method is required for the detection of the many lightly infected persons who convey the disease from place to place. That a similar need has been felt in other lands is evidenced by the number of different levitation methods which have quite lately been suggested in the medical literature of America and India. Most of these methods, however, have the disadvantage of requiring some special, though simple, apparatus not usually available to the field worker of a campaign staff or to the general practitioner in rural districts.

¹ Kofoid, C. A. and Barber, M. A.: "Rapid Method for Detection of Ova of Intestinal Parasites in Human Stools," *Journal of the American Medical Association*, Vol. 71, pp. 1557-1561, November 9, 1918.

² The observations on which this report is based, were conducted with the support and under the auspices of the Commonwealth of Australia, the State of Queensland and the International Health Board of the Rockefeller Foundation.

³ Darling, S. T.: *Lancet*, Vol. 99, No. 5054, July 10, 1920.

A method used with success in this unit during the last few months is a simple application of the principle that hookworm ova will float in a salt solution of sufficient specific gravity and will adhere to a glass surface with which they come in contact. A saturated solution of common coarse table salt in tap water has a specific gravity of about 1,130 and is cheap, readily prepared and of sufficient density for the purpose. A saturated solution of magnesium sulphate is also easily obtainable and has a higher specific gravity (1,180), but is a little more expensive. Twenty-seven *per centum* calcium chloride, as suggested by Bass, gives a fluid of specific gravity of 1,250 and theoretically would be better still, but it is expensive and difficult to obtain and it is more apt than common salt to cause distortion of the ova by osmosis.

The method presented is first to remove sufficient of the specimen, which has been collected in a small tin or an ordinary metal match-box, so that the container is not more than one-sixth full. The specimen tins used by the Hookworm Campaign are circular and measure 3.3 cm. in diameter and 0.8 cm. in height. The salt solution is added drop by drop and thoroughly mixed. Sufficient of the solution is added to fill the container to the brim. After waiting a few minutes to allow the ova to rise, a clean, polished slide is placed on the container in contact with the surface of the fluid. After a further few minutes this is gently removed, inverted and examined under the microscope with a magnification of 100 times. If it be negative, a second slide is placed on the brim of the container and similarly examined. In special cases it may be desirable to examine more than two slides prepared in this way, but experience has shown that for ordinary work two are sufficient. As distortion of the ova is apt to occur if they are left in the fluid for over half an hour, it is wise, in examining a number of specimens, to prepare them in groups of not more than five or ten. Should the specimens have been kept for a number of days, great care must be exercised to insure that the mixing is properly done. In such cases another possibility of error arises from the fact that the eggs may have hatched and the larvæ may not appear on the slide. As a rule, larvæ will be found to float in the salt solution, which in a short time kills them.

The advantages of this method are:

(i.) It allows the general practitioner to make an accurate diagnosis in his surgery in ten minutes, no special apparatus other than a microscope being required. It likewise allows him to determine easily and accurately whether his patients are cured.

(ii.) It is simple and calls for no special skill or experience beyond ability to recognize the ova under the microscope.

(iii.) It is rapid. One microscopist can examine 120 specimens in an ordinary working day, as compared with 50 when the plain smear-centrifuge method is employed. With the assistance of a boy, 200 specimens can be examined in the same time.

(iv.) There is no risk of ova being carried over from one specimen to another, as each specimen is dealt with in the container in which it is collected.

(v.) A small specimen is adequate. The method is therefore suitable for use in campaign work in country districts where specimens have to be carried on horseback for many miles.

(vi.) It is more accurate than the combined or plain smear-centrifuge method, as the following records show:

(a) In 71 specimens from patients three weeks after treatment examined by the ordinary method no *anchylostoma* was found. They were examined by the levitation method described above and hookworms were found in 25.

(b) Twenty-three specimens were collected from persons in whom infection was suspected from the family history. In three, hookworms were found on plain smear examination and four more by the centrifuge method. The remaining sixteen specimens were then dealt with by the levitation method and in three of them hookworms were found.

(c) No hookworms were detected in twenty-six specimens collected from patients five weeks after treatment and examined by the ordinary method. By the levitation method nine were found to contain hookworms.

(d) Forty-five specimens were collected from aborigines who had not been cured by three treatments with oil of chenopodium, six weeks after their fourth treatment. In eight hookworms were found on plain smear examination and another two by the centrifuge method. All the forty-five were then examined by the levitation method; hookworms were found in nineteen specimens, including those found to contain them by the ordinary method.

(e) In a district where previous examination of school children had proved the disease to be present, 510 specimens were collected from the general population, including persons of all ages. In twenty-eight specimens hookworms were detected by the ordinary method, of which twenty were examined as plain smears and eight by the centrifuge method. The same 510 specimens were then submitted to the levitation method by the same microscopists, but without reference to the results previously obtained. Hookworms were found by this method in thirty-eight; this means that the infection rate was not 5.5%, but 7.5%.

That the method should have an error is to be expected, but no facilities exist at present for estimating it. It would be desirable to test it by giving a large dose of oil of chenopodium to persons in whose faeces no hookworms were detected, in order to ascertain, by using the method suggested by Darling,¹ whether hookworms were present. Sufficiently infected regions to be favourable for such a study are, however, few in this country. At aboriginal settlements, where high infection rates are found, it is not advisable under field conditions to administer the maximum dose of three cubic centimetres of oil of chenopodium, as used by Darling, on account of the habitual constipation of the aborigines and the consequent danger of excessive absorption of the drug. It has been found that the ordinary therapeutic dose of 1.5 c.cm. is insufficient for the purpose.

¹ Darling, S. T.: *Lancet*, Vol. 99, No. 5054, July 10, 1920.

Reports of Cases.

THREE CASES OF CANCER OF THE PELVIC COLON COMPLICATING GYNÆCOLOGICAL OPERATIONS.¹

By Ralph Worrall, M.D., M.Ch., Q.U.I.,

Consulting Gynæcologist to the Sydney Hospital and Surgeon to the Coast Hospital.

THE following three cases are of some clinical interest, being emergencies which may and, indeed, sooner or later will occur in the practice of gynæcological surgeons. It is not amiss, therefore, if we review the best methods of dealing with them.

Case I..

F.R., aged 50 years, was admitted to the Sydney Hospital on March 31, 1917, complaining of recurring attacks of pain in the lower segment of the abdomen, accompanied by occasional vomiting and irregular pyrexia. The bowels were moderately constipated; there had been no passage of blood or matter. She had lost some flesh.

Condition on Admission.—The patient was a moderately stout woman. Her temperature was 37.8° C. and her pulse-rate 90. The leucocytic count was 15,400. There was tenderness in the lower part of the abdomen. Vaginal examination revealed a cystic tumour on the left of the size of an orange; it was very tender. A hard, irregular, tender mass was felt in the right posterior fornix of the size of a large hen's egg. No further information was elicited by rectal examination. The pelvic colon appeared on Röntgenological examination to be normal.

Operation.—Abdominal section disclosed a parovarian cyst on the left and a hard, nodular growth of the pelvic colon, very low down and almost, but not quite, encircling the bowel. The growth was excised with a wide margin of healthy tissue. End-to-end union of the cut ends of the bowel was effected by two layers of chromic gut. A split rubber drainage tube was inserted through the floor of Douglas's pouch into the vagina. The patient made a perfect recovery.

Dr. Jamieson reported that the specimen was a malignant adenoma.

On June 16, 1919, that is, two years afterwards, the patient reported that she suffered from pain in the abdomen and back and loss of flesh. Examination disclosed a hard, fixed nodular growth external to the rectum to the left and extending upwards along the iliac vessels. The lumen of bowel was normal.

A young surgeon, who had been assistant to Sir Arbuthnot Lane, was present at the operation and said his chief would probably have used a Murphy's button. I do not think this contrivance would more easily have overcome the difficulty arising from the peritoneum being absent from the posterior surface of the bowel in this situation. If needle and thread will effect perfect union, it is preferable to a mechanical device.

Moynihan says: "In this position an end-to-end anastomosis made inside the abdomen is technically impossible, at least with a sufficient degree of accuracy." He recommends Rutherford Morrison's method of the rubber tube brought out through the anus and invaginating the proximal bowel end into the lower, as "the most easily carried out procedure."

Judging by the glandular recurrence in this case, the defect in the method of simply dividing the bowel above and below the growth and making an end-to-end union seems to be that it is not radical enough; in effecting perfect union it is all that can be desired.

Case II..

E.R., aged 56 years, complained on January 17, 1917, of hæmorrhage from the bowel for two years, of loss of flesh, sometimes of bearing down pains and of enlargement of the abdomen.

She was thin and weak. An irregular, hard, fixed tumour was felt in the lower part of the abdomen, extending to the umbilicus. On rectal examination it appeared

¹ Read at a meeting of the New South Wales Branch of the British Medical Association on July 29, 1921.

that the lumen of the bowel was normal, but a mass from Douglas's pouch bulged in and partly compressed it. Over this mass the mucosa of bowel was quite movable.

Abdominal section was performed and a multinodular myoma was removed by subtotal hysterectomy; the pelvic colon was found to be the seat of a hard, papillary growth, almost encircling it and 7.5 cm. (three inches) in length. This was removed by the same technique as in the last case. Recovery was easy.

In July of the same year the patient reported that she had gained 18 kilograms (28 lb.) in weight and felt better than for years.

In September, 1919, the patient reported that she was quite well in every way. Examination disclosed nothing abnormal.

Last week, Dr. Goldie, of Corrimal, reported that the patient had remained well.

Case III.

S.G., aged 69 years, complained on October 14, 1917, of pain in the lower part of the abdomen and loss of flesh. She had no difficulty with the bowels and there was no blood in the motions.

She was still well nourished. Her temperature was 37.8° C. The urine contained a considerable amount of albumin. A hard mass was felt in Douglas's pouch through the vagina. By rectal examination the mucosa appeared to be normal, but a hard mass bulged into the lumen from Douglas's pouch. As there was a history of an abscess bursting into the vagina two years before, it was thought one had to deal with a suppurating ovarian cyst.

Abdominal section disclosed a hard growth in the pelvic colon, low down and partly encircling the bowel and greatly diminishing the lumen. Above and below the growth the bowel wall was infiltrated with inflammatory products, making it difficult to bring the cut ends together after excision had been performed. The same technique was adopted as in previous cases. A vaginal fæcal fistula formed on the ninth day; otherwise the patient made a good recovery.

On December 11, 1917 (two months after the operation), the patient reported that the fistula only troubled her when the bowels were very loose after aperients.

Dr. Stevenson, of Moss Vale, reported last week that the patient has remained well.

The inflammatory oedema of the bowel wall probably led to the imperfect union in this case.

In symptomatology it is to be noted that, while all the patients complained of pain and loss of flesh, only one gave a history of passing blood or matter. In none was there symptoms of obstruction.

A surgeon who opens the abdomen for one condition, may be confronted with another totally different, which had given no indication of its presence. He must be prepared to deal with all and every difficulty which arises.

Reviews.

ERRORS OF REFRACTION.

A MILD curiosity was satisfied on discovering that "Radiant Energy and the Ophthalmic Lens," by Dr. F. Booth,¹ was a treatise on refractive errors of the eye. The first 84 pages out of a total of 226 are devoted to elementary optics. On the whole, the subject is treated in an interesting manner, the text being illuminated by many excellent geometrical figures. There are, however, too many misprints. The author has an irritating way of putting commas between the letters indicating a line or a triangle, as, for instance, the line "A, B" or the triangle "M, O, P." Several formulæ are given, which, in the absence of proof, serve little purpose in an elementary work.

Turning to refraction work proper, we find more evidence of careless workmanship. The style of writing is

jerky and unpleasant; there is no attempt made to put the matter into literary form. Obscurities abound. For example, on page 99 we read: "185. Conic (*sic*) Cornea.—In a healthy condition of the cornea, where bulging occurs, it is at the posterior end of the globe, around the optic disc." Greek characters look very well, but the absence of accents might well make the classical purist shudder. What would the devotees of modern scotometry say to this? Speaking of fields of vision, page 151, he says: "The location of the blind spot in the optic disc is to be ignored. Its location is not the same in all eyes." On the same page as a test for field of colours he described the now discredited test with coloured wools as a "rigid one," a curious confusion of testing the field for colours and testing for colour blindness. He describes spasm of the accommodation as a very frequent occurrence, whereas many ophthalmologists are inclined to doubt its existence, so rarely are unequivocal examples of it encountered. The description of retinoscopy is given at some length; while it is cast on sound lines, the presentation is tedious and unconvincing. The explanation of retinoscopy that appears in Fuchs's text-book may be regarded as the only acceptable one published; all others are confused obscurities or feeble plagiarisms. The author very correctly advises the student to practise retinoscopy on the schematic eye; but why does he commit such an appalling blunder as: "A simple convex cylinder placed before the schematic eye produces simple hypermetropic astigmatism. A simple concave cylinder, simple myopic astigmatism. A plus cylinder and a plus sphere, compound hypermetropic astigmatism. A minus cylinder and a minus sphere, compound myopic astigmatism." Obviously, it is the other way about. It is regrettable that such obvious blemishes and blunders should spoil a book, which, after all, has much good in it. The author is innocent of the unpardonable sin of being dull. If he would revise carefully, cutting out many needless repetitions, his industry and enthusiasm for the subject convince us that a very creditable book would result.

POWDERED VEGETABLE DRUGS.

THE second edition of Albert Schneider's book on powdered vegetable drugs¹ replaces that issued twenty years ago. It has grown considerably, in both reading matter and in illustrations. The book is practically two volumes in one. About 200 pages are devoted to general considerations and the remainder to an atlas showing over two hundred vegetable powders under the microscope. All the drawings are in black and white and represent the various tissues under ideal conditions. They are well executed and are accompanied by good descriptions in the text. The atlas compares favourably with that of Greenish and Collin, which is so much used by British analysts and pharmacists.

"General Considerations," or Part I, is divided into eleven chapters, which are as follows: "The Microscope in Modern Pharmacy," "General Suggestions on the Examination of Vegetable Powders," "Quality and Purity of Vegetable Drugs from the Standpoint of the *Pure Drugs Act*" (i.e., of the United States of America), "Causes Modifying the Characters of Vegetable Powders," "Powdering Vegetable Drugs," "Adulteration or Sophistication of Vegetable Drugs," "The Microscopical Examination of Powdered Vegetable Drugs," "Keys to the Study and Identification of Simple Powders," "Keys to the Study and Identification of the U.S.P. and N.F. Compound Powders," "Micro-analytical Study of Crystals," "Quantitative Microscopic Determinations."

It is a pity that more attention has not been given to the practical methods employed by the micro-analyst. A few suggestions are given which could be well extended.

All the typical plant tissues are described and dealt with in a systematic manner. This portion will prove of much value to the student, as it is upon these that the analytical keys are based. On the whole, the keys appear

¹ "Radiant Energy and the Ophthalmic Lens," by Frederick Booth; Introduction by Whitefield Bowers, A.B., M.D.; 1921. Philadelphia: P. Blakiston's Son & Company; Crown 8vo., pp. 226, with 230 illustrations. Price: \$2.25 net.

¹ "The Micro-Analysis of Powdered Vegetable Drugs," by Albert Schneider, M.D., Ph.D.; Second Edition, 1920. Philadelphia: P. Blakiston's Son & Company; Royal 8vo., pp. 548, with 237 illustrations. Price: \$5.00 net.

to be workable, but are easily thrown out of working order when impurities are present in a drug.

The quantitative determinations are based on counts of characteristic tissue after the powder has been suitably mounted on a hæmocytometer.

The references to the American *Pure Drugs Acts* may be of value to workers in Australia. The American legislation is considerably in advance of our own in this case. The book is obviously intended for the American student and workers; the drugs and powders referred to are those of the United States Pharmacopœia. This, of course, must be borne in mind by followers of the British Pharmacopœia.

Notwithstanding these slight drawbacks, the book under review is one of the best in the English language and is worthy of a place in the laboratory of those analysts, manufacturers and students interested in vegetable powders.

Notes on Books.

TWO MEDICAL DICTIONARIES.

MANY medical men have acquired in their school days a small acquaintance with the French language. The necessity of reading articles published in French involves a laborious translation with the aid of a dictionary. As far as medical terms are concerned, the English-speaking practitioner has two or three reliable special dictionaries. A new one by Dr. Alfred Gordon¹ is admirably suited to this purpose. It is not a large book and yet it contains the greater number of medical terms in use to-day and many non-professional terms which appear frequently in medical writings. The type, the printing and the general get-up are good.

Miss Constance M. Douthwaite, of Saint Bartholomew's Hospital, London, has produced the second edition of her "Nurses' Medical Dictionary." This little book bears some similarity to the proverbial curate's egg. The greater number of the definitions are correct, but we are not convinced that the method employed is quite suitable for the purpose of the book. In some cases the definition is not acceptable, such as "diastolic murmur, a sound produced by the diastole." A serious mistake may be instanced in the statement that a vaccine "is prepared from the blood of an animal which has been previously inoculated with the given disease germ." It is difficult to understand why Miss Douthwaite spells *anæmia* with a diphthong and *pneumathæmia* without one. Incidentally, we may question whether a nurse would derive any benefit from an introduction to the latter term. Midwife is defined as "a nurse qualified to assist at childbirth." She should be; but is the definition true to-day?

Analitical Department.

ANTIPHLOGISTINE.

THE DENVER CHEMICAL MANUFACTURING COMPANY has a branch in Sydney at which "Antiphlogistine" is manufactured. Arrangements have been made for the inspection of this factory and for an analysis of the product for THE MEDICAL JOURNAL OF AUSTRALIA.

"Antiphlogistine" is a proprietary form of *cataplasma kaolinii* of the Australasian Pharmaceutical Formulary. It is composed of a certain inert earth and glycerine, together with a little oil of peppermint, oil of eucalyptus, methyl salicylate, boric acid and iodides.

Manufacture.

The mineral earth arrives at the Sydney factory in bags, having been mined and ground in America by the parent

company. It is mixed in a specially constructed closed mill with a large amount of glycerine and the antiseptics named above. The earth does not undergo any preliminary treatment. An Australian variety of earth is used at times. The product prepared with this earth has a somewhat different colour, but is otherwise identical in composition to that made with earth from America. After it has been thoroughly ground and mixed in the mill, the mass is led down a closed chute and fed to specially constructed seamless tins. The lids are placed on these tins and the latter are made air-tight by special machinery. The whole process is carried out in the cold.

Our inspector reports that the manufacture is carried out in a cleanly manner in special rooms set aside for the purpose. Although a particular point is claimed that none of the ingredients is touched by hand, it was noted that no attempt was made to sterilize the earth used nor the tins into which it was placed. The proprietors apparently rely on the antiseptics and on the heating which is necessary before the poultice is applied, for efficient sterilization. The whole operation is conducted by machinery and the mass is kept throughout under cover.

The earth used was found to be practically dry and in a state of extremely fine division. It was free from grit and had been carefully selected and treated before its arrival. It is claimed by the company that the earth is burnt before the grinding. The results of the analysis support this claim.

The glycerine used is of good quality. The stocks of all the other ingredients were inspected and were found to be the products of well-known makers.

Samples of boric acid, salicylic acid and eucalyptus oil collected at the factory were analysed and were found to conform with the requirements of the British Pharmacopœia. Our inspector is satisfied that all the ingredients used are of good quality.

Analysis.

A sample of "Antiphlogistine" was collected from the factory and a second sample was bought in the open market. Both were analysed. They were found to be practically identical in consistency, odour and texture. The slight difference in shade was no doubt due to the variety of earth used. Boric acid, salicylic acid, the essential oils and combined iodine were found in both samples. As far as could be ascertained by chemical analysis, the samples conformed with the formula of the company. No free iodine, however, could be detected. Free iodine is included among the ingredients and the proprietors claim that there is free iodine in the finished article.

Therapeutic Value.

It is claimed that "Antiphlogistine" is "a perfectly harmless, soft, pliable, non-irritating, non-toxic, soothing and antiseptic poultice and surgical dressing, possessing hygroscopic, nutrient, exosmotic, endosmotic and indirectly anodine and hypnotic properties." It is recommended for the purpose of giving relief from pain in pneumonia, enteritis and a large number of other inflammatory and painful affections. The proprietors do not claim that "Antiphlogistine" exercises any curative action in the diseases in which it is used.

The mass of mineral earth and glycerine replaces the linseed of a linseed poultice and retains the heat. The glycerine, being hygroscopic, gives the poultice the greater part of its special properties. The percentage of antiseptic is very small.

The advantages over the ordinary wet poultice appear to be that the product absorbs moisture readily, that it is mixed ready for use, that it can be easily applied and that it can be easier removed. It can be heated as required in the original container, which is designed for the purpose. It is doubtful whether it possesses any special nutrient properties.

From the information contained in the inspector's report and from the results of the analyses we are satisfied that the Denver Chemical Manufacturing Company's "Antiphlogistine" is a carefully manufactured and excellently exhibited variety of kaolin poultice. It can be recommended for the relief of pain in a large variety of affections.

¹ "French-English Medical Dictionary," by Alfred Gordon, A.M., M.D.; 1920. Philadelphia: P. Blakiston's Son & Company; Royal 8vo., pp. 161. Price: \$3.50 net.

² "Baillière's Nurses' Complete Medical Dictionary," Edited by Constance M. Douthwaite; Second Edition, 1920. London: Baillière, Tindall & Cox; Pocket Size, pp. 206.

The Medical Journal of Australia

SATURDAY, OCTOBER 29, 1921.

The Amended Curriculum.

THE medical curriculum has been lengthened in the three medical schools of our universities. But a short time ago the Senate of the University of Sydney approved of the extension of the course to five years and two terms. The approval of the Council of the University of Melbourne has recently been given to the proposal to extend the medical course to the same length as in Sydney. The Council of the University of Adelaide has now issued new regulations for the degrees of Bachelor of Medicine and Bachelor of Surgery, prolonging the course to six years. In Sydney, the matriculation examination has just been revised, in order that the undergraduates may have a more severe test of general education to pass before they start on their higher studies. A similar amendment of the preliminary steps to medical training are now required of students in Melbourne and Adelaide. These amendments in the medical curricula in Australia are necessary measures to safeguard the profession of medicine. The medical profession is regarded in general circles as an excellent field for money making. There seems to be a tendency to ignore the fact that not everyone is fitted for the calling of doctor. It is possible to convert the profession into a trade, but this change involves a sacrifice of the dignity, the prestige, the traditions and the usefulness of a great profession. The essential attributes for a creditable practitioner of medicine are many. They include a sound, general education, an inherent sense of responsibility, an understanding of human nature, a sympathetic feeling toward those who are in need of help, good breeding, a good address and unselfishness. To these qualities should be added an insatiable desire for knowledge, a critical mind and an ability to investigate unsolved problems. The university authorities have recognized that the admission of an ever-

increasing number of students, unless some more or less severe test of ability and industry is provided, must inevitably lead to an increasing number of misfits, of men and women who, by temperament, by birth and by preliminary education are wholly unfitted to share the responsibility of upholding the dignity of the medical profession. It is, of course, impossible to devise means for estimating the suitability of candidates and for excluding from the roll of students those who are unfit. No standard can be fixed whereby the differentiation could be carried out. It is useless to follow the example of the ancient universities of England, since this would be impracticable and vain in democratic Australia. The expedient of increasing the cost of medical education would be foolish, for some of the most brilliant members of the medical profession have been compelled to gain their training with the aid of scholarships or extreme economy. Consequently, the only method open to those responsible for the regulation of medical education is to raise the standard of the preliminary training at school. The extension of the course has been introduced on account of the increased amount of work the student has to perform. Incidentally, the longer course may have the effect of weeding out some of those who are not in real earnest.

While there does not appear to be much prospect of purging the medical profession of all those who do not possess the attributes mentioned above, no real impediment exists to the amendment of the curriculum to bring it into conformity with scientific medicine of to-day. A step in the right direction has been taken in Sydney. The altered regulations issued in Adelaide also reveal some progress. Unfortunately, much remains to be done before a satisfactory method is adopted. In Adelaide, the student is required to undertake practical work as well as to attend lectures. The recognition of the value of practical work is an important omen. We hope to see in the syllabus and schedules which are to be drawn up by the Faculty of Medicine, with the approval of the Council, a great reduction in the number of systematic lectures, until they reach a point near to disappearance. Again, the substitution of four for five examinations is admirable.

In the third place, the introduction in the fourth and fifth years of teaching on public health and preventive medicine is a definite advance on the old system of leaving the subject of the elements of hygiene as an afterthought tacked on to the end of the curriculum. The regulations, however, disclose a conservatism of the Faculty or the Council and a disinclination to face the needs of a complete revision. The six years are still divided into watertight compartments. The preliminary scientific subjects are tucked away into the first twelve months. Then follow two years devoted to anatomy and physiology, bio-chemistry and organic chemistry, *materia medica* and pharmacology. As soon as the student enters the fourth year of his course, he throws away his chances of acquiring knowledge of the fundamental sciences on which his life's work will depend. Before he reaches the middle of his sixth year, he will have forgotten the greater part of his chemistry and physics, notwithstanding the fact that he will be required to apply this knowledge to particular branches of medical science. Two years are devoted to clinical work, to regional and surgical anatomy, to operative surgery, to pathology and bacteriology, to therapeutics and to public health and preventive medicine. This list implies that preventive medicine is to be regarded as a side issue and not as the most important of the studies of the future. It is possible that the syllabus constructed on the ground of these regulations may provide for a certain amount of co-ordination of the teaching of these diverse subjects. If prominence be given to practical work and if means be adopted to connect study in the laboratories with that of the clinics, an immense advance will be registered. The last year is reserved for the principles and practice of medicine and surgery and to the so-called specialties. There would appear to be a danger in this arrangement, lest the student gain the impression that he can acquire a sufficient training in obstetrics, which he will need every day of his life, as readily as he will obtain the smattering of forensic medicine or of psychological medicine necessary for a general practitioner.

We trust that it will not be long before the curriculum is again revised and that the next reform will include the continuation of the training in the

fundamental sciences throughout the whole course, as suggested by the Edinburgh Pathological Club, and the recognition of the three ultimate sciences by the establishment of chairs of medicine, surgery and preventive medicine.

A PUBLIC QUESTION.

A FEW years ago the subject of venereal disease and that of the sexual relations between men and women was taboo in the daily press and in public discussion. These matters were regarded by Mrs. Grundy as non-existent, or, at worst, of no concern to the community as a whole. False modesty was the order of the day and no one was courageous enough to face a condition which was undermining the health and happiness of our race. On the continent of Europe the awakening came early. It came suddenly and the means adopted to combat the evil was a two-edged sword, capable of inflicting grievous injury to a large section of the people. Bulky volumes were written with the object of enlightening an ignorant world. The contents of many of these books whetted the sexual appetite of susceptible young persons of both sexes and taught a dangerous lesson, like all attempts to impart superficial knowledge. The Church in Great Britain was largely responsible for the disastrous attitude adopted toward the sexual questions. The ancient *Contagious Diseases Acts* were removed from the statute books, not so much because they had failed to effect their objects, as because they gave a sort of legal recognition of prostitution and of measures directed toward the reduction of the spread of venereal diseases. It is true that these enactments, cloaked under a mock title, were either unsuccessful or were only partially fruitful, for they contained many illogical provisions and were not in fact open remedies of a terrible scourge.

The history of every age, unless prepared for the modest delectation of schoolgirls of the prunes and prism type, reveals that human nature is immutable. It is vain to hope that promiscuity in sexual intercourse will ever become the exception. In other words, hygienists must recognize that, as long as venereal infection remains uncontrolled and unattacked, so long will these diseases claim count-

less victims among the careless, the ignorant and the innocent. Statistics have been gathered in every country under the most varied circumstances. Not many years ago it was ascertained that the male students at a large continental university acquired, on the average, about three venereal infections during their short undergraduate life. The war demonstrated afresh that opportunity for illicit sexual intercourse without prophylactic checks led to the infection of an appalling proportion of soldiers. Quite recently Dr. N. Hamilton Fairley, O.B.E., and Dr. Robert Fowler, O.B.E., contributed a remarkable letter to THE MEDICAL JOURNAL OF AUSTRALIA, revealing that 10% of the patients in the Women's Hospital, Melbourne, were syphilitic and that 50% of the husbands and their other children were also infected. It has been said that civilization is almost synonymous with syphilization. Gonorrhœa is even more widely spread.

A short time ago a conference was to have been held under the auspices of the Minister of Health for the Commonwealth on some aspects of the venereal diseases problem. Unfortunately, this conference was postponed at the eleventh hour. The Director-General of Health contributed to our columns just before the date of this proposed conference a thoughtful article, which would have served admirably as a starting point for discussion. As is well known, the authorities have toyed with this matter for a few years, apparently without definite benefit. The public has been satisfied in the belief that something official was being done in connexion with this this unsavoury subject. To-day the public has become accustomed to read of the terrible effects of venereal diseases and of the necessity to adopt measures to check its ravages. This education must be continued. The medical profession is alive to the havoc played by the spirochæte and by the gonococcus. The time is ripe for the enlightened members of the general community to take an active part in the endeavour to lessen the amount of infection. A society has just been formed in Melbourne for fighting venereal disease. The prime movers in the institution are medical men and women determined to achieve success. The society has the approval of the Victorian Branch of the British Medical Association and one-quarter of the seats on its govern-

ing body is being reserved for medical practitioners nominated by the Victorian Branch. The Victorian Medical Women's Society is also to have its nominee on this body. In New South Wales there is a similar society and it is stated that others are being formed in other States. The underlying principle is most commendable. Once public opinion is thoroughly aroused, it should be possible to hunt the germs of these infections to their lairs and to keep them in check, at all events, to some extent. The world needs to be in earnest.

THE CAUSATION OF TWIN AND MALFORMED EMBRYOS.

EMBRYOLOGISTS, pathologists, anatomists and obstetricians, in turn, have endeavoured to find acceptable explanations for the occurrence of twin embryos and of monsters. Notwithstanding the large number of hypotheses which can be found in the literature of the past fifty years, we have been forced to accept the fact and to admit that we are entirely ignorant as to the laws which govern deviations from the normal development of the human or animal embryo. We have recently had presented to us the results of a remarkable research by Dr. Charles R. Stockard, on which he builds some highly ingenious, albeit simple, hypotheses concerning the production of monsters, twin embryos, teratomata and analogous biological phenomena.¹ This study will exercise far-reaching effects on our conceptions of embryological processes. At present it is impossible to pass a final judgement on the inferences drawn from the many facts elicited in his experimental researches. But we will probably be on safe ground if we accept the general principles on which his work and arguments are based.

Dr. Stockard starts out on his search for truth by assuming that for every given species of animal there is a specific rate of development, influenced by hereditary and environmental factors. Among the latter he recognizes the oxygen supply, the temperature, the nutrition and the reaction of these factors on the developing embryo. His researches are restricted to these environmental factors. He further assumes that the development may be continuous or discontinuous. It may exhibit periods of rapid progress, alternating with periods of a slow rate of development. An example of discontinuous development is found in the hen's egg. The egg is laid at the time when or just after the contained embryo reaches the stage of gastrulation. As is well known, the development may be interrupted for some days after the egg is laid. The first investigations were undertaken to determine the result of a temporary interruption of a normally continuous development. The eggs of a fish, *Fundulus heteroclitus*, the common minnow, with which Dr. Stockard was already familiar, were selected for

¹ The American Journal of Anatomy, January 15 1921.

this purpose. Some of the eggs were placed in the ice-chest at a temperature of from 5° C. to 9° C.. Other eggs were kept with a diminished oxygen supply. The eggs were taken from the female, fertilized and placed in the ice-chest for varying periods. In the first series of experiments he was able to demonstrate that development could be slowed or arrested for a considerable time with very little ultimate effect, if the application of cold were commenced twenty-four hours after fertilization, when gastrulation had begun. When the development was slowed three hours after fertilization, all forms of monstrosities were obtained. Double-headed forms and forms with eye and brain defects were the most common. Extending these experiments, he found that exactly the same types of deformities were produced by different agents, such as chemical substances in solution, diminished oxygen supply or lowered temperature. He concluded from these experiments that the fundamental cause of malformation was arrest of development at a critical period.

He then turned his attention to twin formation. A ready explanation of the occurrence of uniovular twins has been held to be in the separation of the first two blastomeres resulting from the division of the fertilized ovum. This had actually been observed in frogs. He found, however, that in other animals, while these separated blastomeres did not develop into complete animals, uniovular twins had been observed to occur. From various observations he conceived the hypothesis that, before the axis of a vertebrate embryo is formed, there may be several potential axes or buds. That there are two of these potential axes in some animals and even as many as twelve in one variety of armadillo is shown by the number of developed embryos. Normally, one bud gains a slight advantage over the others, which become suppressed in consequence. In support of this hypothesis, he slowed or arrested the development of *Fundulus* eggs three and a half hours after fertilization, with the result that as many as 10% of the embryos were double monsters. In this connexion he recognizes that there may be a strong hereditary factor in twin formation, as in the case of the trout. The Texan armadillo, a mammal, has normally four young developed from one ovum. He suggests that in human beings the tendency to uniovular twin formation is due to a slower uterine reaction and placental formation. In the armadillo it has been shown that the early blastocyst lies free in the uterus for as long a period as three weeks. He claims that this lends support to the environmental hypothesis that, if development is slowed or arrested at the period when the vertebrate axis or bud is being formed, the other axes or buds may be formed. This would lead to the appearance of twins, quadruplets, etc., from one egg. From extended experiments with trouts he assumes that teratomata may represent "inhibited twins," since they appear to form in the embryos in which the second bud has been suppressed or inhibited. He points out that this assumption would explain the appearance of teratomata in all parts of the body and also their varied nature.

The subject of twin embryo and gross defects in development is closely related to the individual development of organs. He therefore found it necessary to study the factors concerned in the normal and abnormal development of organs. He found that there is not only a definite *Anlage* for each organ, but that there is a limited period in the development during which the organ can become differentiated. In other words, each organ has its peculiar "developmental moment." He suggests that there is a growth competition between different organs. If an organ does not commence to differentiate at its proper "moment," the other organs will inhibit or retard its complete formation. He succeeded in suppressing the development or in causing malformation of the eyes, the brain, the branchial pouches, the liver and so on more or less independently by careful retardation or arrest of growth at the precise moment when these organs were being "laid down." He holds the view that organs arise like buds of a plant, each bud or organ being dominant in turn at its period of maximum differentiation rate.

These data and the hypotheses which Dr. Stockard has built up on them, yield rational explanations for the formation of many defective monsters, partial twins of all kinds and identical twins. It becomes easy to trace a complete series from *monstra in defectu* to *monstra in excessu* and twins. Dr. Stockard details the many attempts which appear in Nature to secure a uniform environment for developing vertebrates. He is inclined to support Mall's hypothesis that the majority of monsters in mammals is caused by an insufficient oxygen supply, resulting from a faulty placentation. In regard to teratomata, he points out that the period of most frequent clinical incidence coincides with the period when the growth of the individual is slowest, *id est*, from two years to puberty and later in adult life. He discusses growth inhibition and age in reference to cancer. He is inclined to the view that cancer has an hereditary incidence and that growth inhibition is least in old age, when traumata frequently lead to cancer. He is convinced that cancer often occurs in all old animals and supports his contention by observations in rats, guinea-pigs and other common animals. The alleged increase in the cancer mortality is partly correlated with an increase in longevity.

ADRENAL INSUFFICIENCY.

THE progress of the science of medicine is dependent on the balance between enthusiasm and sanity. Enthusiasm is necessary in the investigation of the different problems of disease. Without it research would be barren and progress impossible. Sanity of judgement is equally essential. New ideas in medicine are apt to enslave those who originated them or those who accept them without question. The curb of scientific criticism helps to keep the imagination in check and to retard the fleet foot of youthful zeal. Unfortunately, it can be said of the vast mass of medical literature that it is not tempered with the sanity of true genius. Amid the

dross of innumerable papers on medical subjects it is difficult to find the true metal. Some years ago the attention of the profession was directed to the study of the ductless glands. Just sufficient was known of their functions to entice the enthusiasm of those who were greedy for the secrets of disease. The study of the internal secretions was given a filip denied to almost every other department of medicine. Physiologists, pathologists, physicians, gynaecologists and specialists in every branch of medicine became interested, since there appeared to be few subjects with which the study of the internal secretions was not concerned. In France and the United States of America especially the amount of literature which has appeared on the endocrine organs is enormous. Much of it is the result of cautious observation and deliberation, but a greater proportion is disfigured by statements more remarkable for their temerity than for their appreciation of scientific truth.

It is pleasurable, therefore, to read a remarkably well-balanced and commendable review of the subject of adrenal gland insufficiency in the May issue of *Endocrinology*. The author, Dr. G. N. Stewart, is competent to write of his subject, since he has himself made a considerable contribution to the study of the adrenal glands. These bodies, as a result of our ignorance of their functions, have assumed a glamour which future knowledge may fail to justify. Adrenal insufficiency is a term which has been applied to certain clinical and experimental manifestations by a host of pathologists and clinicians. Yet not only do the symptoms described show kaleidoscopic variations, but wherein lies the failure of the adrenal bodies no bio-chemist or experimental pathologist has yet been able to say. The known facts concerning the functions of the suprarenal capsules are few. Death occurs when both adrenal bodies are removed from certain laboratory animals, even if an appreciable interval is allowed to elapse between the removal of each gland. That the animals die from the results of this extirpation is beyond doubt, but the symptoms which precede death are by no means characteristic. The only constant feature is muscular weakness, but this can hardly be said to be pathognomonic of adrenal extirpation. It has been found impossible to produce by experiment a condition of adrenal deficiency in which the animal survives for a considerable period and manifests characteristic symptoms due to the ablation. The paring of the gland either proceeds so far as to cause rapid death of the animal or so little as to allow the animal to live in comparative health. As Dr. Stewart puts it, in animals which survive with a vast anatomical deficiency in adrenal tissue, it is very difficult to unveil any signs of corresponding physiological insufficiency.

Foiled in their attempts to describe the physiological action of the adrenal glands, many writers have sought the secret of their functions in a reciprocal relationship with other endocrine organs. The feeding of an animal with thyroid gland substance has been said to lead to hypertrophy of the suprarenal capsules. This observation, made by Herring in 1917, has not been satisfactorily estab-

lished and by other workers has been frankly denied. But that there is no definite, specific relationship between the two glands is suggested by the facts that the hypertrophy involves also the pancreas, that actual thyroidectomy produces a similar adrenal enlargement and that adrenal hypertrophy is associated with pregnancy, with starvation and with many chronic and acute infective processes. Gley, one of the pioneers of the study of the internal secretions, has protested vigorously against the glib confidence with which many writers speak of a reciprocal action between the adrenal and thyroid glands without one iota of experimental evidence in support. The majority of these writers describe epinephrin as the wonderful substance which has such a potent influence on the metabolism and functions of the body. Epinephrin is a product of the medullary substance, yet all experimental work has demonstrated that it is the cortex which is essential to life. The medulla of both adrenal bodies may be removed without causing the death of the animal and yet epinephrin has been apotheosized as the substance which determines the ebb and flow of life. Indeed, not a few writers make the primitive error of assuming that epinephrin is manufactured by the cortex, an error for which a third-year medical student might well be rebuked.

Dr. Stewart reviews the literature which undisciplined clinicians have cast upon a very credulous world. "Adrenal insufficiency" has been blamed for a forbidding series of human ills. Certain German writers have described an "adrenal dyspepsia" on the flimsy evidence that the patients appeared to be benefited by the administration of adrenalin. Carles, a Frenchman, has paraphrased the indefinite clinical entity known as "shell shock" with the equally vivid and less valid description, "capsular exhaustion due to war fatigue." No proof exists that fatigue causes diminution of the epinephrin output, but this does not deter Carles and his *confrères* in the least. Hypo-adrenalism has been said to dominate the clinical picture of enteric fever, influenza, cholera, dysentery and a host of other conditions. It has also been blamed as the immediate factor in cardio-vascular shock—all without a scintilla of clinical or experimental proof. Dr. Stewart quotes amusing extracts from two authors on the subject of *mal de mer*. Naamé attributes seasickness to hypo-adrenalism, due to inhibition of the adrenal glands by the rolling of the ship. Cazamian attributes it to stimulation of the same glands by the rolling of the ship. And both authors recommend adrenalin as the cure! French, German and American authors on the subject have indulged in a wild orgy of unscientific speculation, heedless of the warnings of their more astute countrymen. We may shortly experience a reaction, in which the greater proportion of writings on the clinical applications of the study of the internal secretions will be relegated to the limbo of forgotten things. Meanwhile, the poverty of facts known should stimulate more thorough investigation. And this investigation should be tempered by a due appreciation of the danger of unbridled clinical speculation.

Abstracts from Current Medical Literature.

DERMATOLOGY.

(190) The Genesis of Neuro-Syphilis.

J. E. MOORE (*Archives of Dermatology and Syphilology*, July, 1921) states that neuro-syphilis almost invariably originates during the first few months of syphilitic infection. The reason that the central nervous system does not become involved in every case of syphilis is that the protective action of the chorioid plexus and meninges comes into play in these instances. Nervous involvement is also determined by the strain of *Spirocheta pallida*. All cases of neuro-syphilis, however, are not due to a neuropathic strain of *Spirocheta pallida* and infection does occasionally occur from organisms in the absence of definite tropism on the part of the tissues. The author divides cases of syphilis into two groups. The first group, comprising 20% to 30% of cases, show early signs of invasion of the central nervous system. In the second group this invasion cannot be demonstrated. The first group is subdivided into three sub-groups. In the first the invasion is successfully combated without treatment. In the second the response to treatment is good and subsequent examination of the cerebro-spinal fluid reveals no evidence of infection. In the third the signs of involvement of the central nervous system are eradicated only with the greatest difficulty. The writer does not consider it necessary to perform a second lumbar puncture, if the first examination of the cerebro-spinal fluid reveals nothing. The only conditions which render a second cytological examination necessary, are those in which there has been a second generalization of the disease, either as a result of interruption of the treatment or of extension from a gummatous periostitis of the cranium. A fresh generalization of the disease is evidenced by a recurrence of the reaction to the Wassermann test.

(191) Chancre of the Gums.

JOSEPH V. KLAUDER (*Archives of Dermatology and Syphilology*, May, 1921) reports a case of chancre of the gums. He claims that the gums are one of the rarest sites of primary syphilis. The patient was a male, who confessed to the practice of perversion of the sexual act. Statistics indicate that extra-genital chancres occur more frequently in women than in men. Of all chancres in women, 22% are extra-genital, whilst the percentage of extra-genital chancres in men is less than 4%. The breasts are the most frequent site in females. Amongst the commonest causes of oral chancre, apart from sexual perversion, are infection from eating utensils, from kissing and from dental instruments, toothpicks, tooth-brushes, etc.. The site of infection of the gums is almost exclusively the anterior aspect.

The lesion is either single, non-painful and erosive, when it is usually followed by a considerable amount of lymphatic involvement, or it is ulcerated and indurated, when it may expose the periosteum and become very painful. Dark-ground illumination is a difficult method of examination, owing to contamination of the chancre with saliva and to the fact that the *Spirocheta microdentium* is morphologically identical with the *Spirocheta pallida*. The diagnosis depends on the early appearance of extreme adenopathy and on the Wassermann test. Examination by dark field illumination serves to differentiate the abrasive type of chancre from inflammatory and ulcerative lesions due to a variety of different causes and from ulcerating tumours of the gums, such as fibroma, epithelioma and sarcoma, which are slower in growth and do not cause lymphatic involvement.

(192) Ringworm of the Nails.

ROBERT HODGES (*Archives of Dermatology and Syphilology*, July, 1921) has attempted to isolate the fungus of onychomycosis by means of a number of experiments. He considers that the proportion of people affected with this condition in the United States of America is about 0.2%. In all his cases there was an entire absence of any ringworm of the scalp, which would indicate that the causative fungus was not an endothrix trichophyton. A large majority of the cases were caused by large, spored, ectothrix trichophytons. The experimental culture of these fungi was made on Sabouraud's maltose-agar. The frequent co-existence of *Tinea cruris* with onychomycosis suggested that the aetiological factor in the production of the former affection may in some cases be due to a trichophyton instead of the *Epidermophyton inguinale* of Castellani. The treatment used included the application of 10% potassium hydroxide. The nails were scraped thoroughly, to allow the application of an ointment consisting of benzoic acid (four parts), salicylic acid (two parts) and petrolatum (thirty parts) in immediate contact with the fungus.

(193) Viability of Ringworm Fungus in Dry Cutaneous Material.

DAVID FARLEY (*Archives of Dermatology and Syphilology*, June, 1921) carried out a number of experiments to determine how long ringworm fungi remained viable in scrapings and hairs and how long articles of apparel and toilet necessities (e.g., brushes) retained their infectivity after exposure to the fungi. The material subjected to examination consisted of hairs, crusts, etc., in which fungous elements had already been demonstrated. These were put in sterilized envelopes. The author found that *Tinea corporis* yielded no cultures. Three of the successful growths were viable after 400 days. The fungi cultivated included *Epidermophyton inguinale*. There was one case of *Tinea unguium*. One-third of the epidermo-

phyton cases gave cultures after more than five months. There was no growth in any of the samples after 500 days. The author, in referring to Dold's work in connexion with *Tinea cruris*, calls attention to the great discrepancy between that author's results and his own. Dold found that after thirty days it was impossible to grow *Epidermophyton inguinale*.

(194) The Role of the Endocrine Glands in Acne.

LESTER HOLLANDER (*Archives of Dermatology and Syphilology*, May, 1921) distinguishes two types of patients who suffer from acne. The first group includes those patients who are thin and anæmic and the second those who are stout, full-blooded or plethoric. In patients of both groups the author maintains that there is an endocrine imbalance. Thin, anæmic patients suffer from a thyroid toxicosis, which results from stimulation of the thyroid gland. This stimulation represents an effort to compensate the endocrine imbalance produced at puberty by the activity of the gonads. For this type of patient the writer recommends, in conjunction with the usual hygienic and dietetic measures, the administration of suprarenal gland substance (0.3 gramme) three times daily. For the second type of patient, whose acne is due to a deficient secretion of the thyroid glands, thyroid gland substance, in doses of 0.015 gramme three times daily, is recommended. The dose should be increased if there is no quickening of the pulse or other signs of thyroid intoxication.

(195) Paraffin Oil Tumour.

JOHN H. STOKES AND J. SCHOLL (*Archives of Dermatology and Syphilology*, July, 1921) report a case of probable paraffin oil tumour in the upper arm, due to the injection of camphor oil in which the olive oil required by the pharmacopoeia had been replaced by liquid paraffin. The appearance of the tumour suggested that it was either a malignant neoplasm or a tuberculous swelling. There were chains of nodules extending from the posterior aspect of the upper arm downwards towards the anterior aspect of the elbow and upwards into the axilla. Microscopic examination of the tumour showed numerous tubercles in which were epithelioid cells and giant cells. The giant cells contained oil vacuoles, which were demonstrated by staining the cells with Sudan III. The history indicated that the patient received a hypodermic injection of "camphor oil" 18 months previously, during an attack of pneumonia. The lesions were removed surgically. A skin graft was performed later with good results. There was no recurrence.

RADIOLOGY.

(196) Deep Röntgen Ray Therapy.

G. E. PFAHLER (*American Journal of Roentgenology*, May, 1921) reports

some clinical results from the newer technique of deep Röntgen ray therapy in malignant disease. Towards the end of 1920, Coolidge and Schmitz reported the greater voltages and the heavier filtration which were used in the various clinics in Germany, together with a great increase in the skin-cathode distance. The majority of American machines will not give these high voltages. Pfahler modified his ordinary technique in order to obtain similar results from the existing machines. Previously he had used five milliamperes of current at 126,000 volts for eight minutes at a 20 cm. cathode-skin distance and with a 6 mm. glass or aluminium filter. He now uses the same current and voltage at 30 cm. distance with 10 mm. of glass or aluminium as a filter. The dosage varies from 40 to 50 minutes. The shorter time rarely produces an erythema, which is generally obtained with the longer time. In this class of work great care has to be taken to protect the patient and the filters must be carefully checked and the patient must be protected from radiations from parts other than the face of the anti-cathode. The author prefers glass to aluminium as a filter, as there seems to be less likelihood of perforating the tube at these high voltages. In this form of treatment, wide areas are irradiated with a view to producing greater secondary radiations in the diseased tissue. It is necessary to administer a maximum dosage within a month. Otherwise, the tumour becomes more resistant to the radiations. Radiation sickness is often troublesome and the operator must carefully guard himself from radiation.

(197) Primary Lung Tumours.

ARTHUR CHRISTIE (*American Journal of Roentgenology*, March, 1921) describes the diagnosis by Röntgen rays of lung tumours. Benign tumours are very rare and malignant tumours comparatively common. The clinical history, especially the history of onset, is of great assistance in the diagnosis. Pain and dyspnoea, which gradually become worse, and a dry, unproductive cough are generally noticeable features in malignant tumours, which begin usually at the hilum and extend peripherally in a fan-shaped manner with indefinite edges. From certain parts of the advancing margin darker shadows may shoot out into the lung substance. Interference with the entry of air into the lung occurs rather early in the course of the tumour's life. Later, nodules may appear along the bronchi. In the diffuse type small nodules may appear through the lung, with small areas of congestion around each nodule. Intra-thoracic goitre, hydatid cysts and dermoid cysts are usually rounded and sharply defined. Mediastinal tumours may usually be differentiated from these swellings if the patient is examined in various positions with the screen. Gummata may be differentiated by the obtaining of a Wassermann reaction and the disappearance of the tumour after the ex-

hibition of iodide of potassium and other drugs. Bronchial adenopathy following influenza is at times difficult to differentiate, but this condition tends to resolve and not to increase. Bronchiectasis, abscess and encysted empyema are differentiated from lung tumours with difficulty, but a correlation of physical findings with the radiographic appearances will generally determine the diagnosis.

(198) Radiation Treatment.

ROBERT KNOX (*Edinburgh Medical Journal*, May, 1921) describes the treatment of diseased tissues by X-rays and radium. The range of such treatment is wide, extending from the ultra-violet rays to the γ rays of radium. The effects of radiation are dependent upon the power of absorption which the tissues possess for the particular wave lengths employed. Physical data may be obtained and noted with ease, but the biological response in the tissues varies. In superficial lesions the ultra-violet rays, X-rays and radium can all be used with success, but in deeper lesions the harder X-rays and radium rays only are of value. The author describes the various lesions which are benefited by radiation. Tinea of the scalp and beard are usually cured after an epilatory dose and with careful technique the risk to the patient is small; but it is a wise precaution in these cases to use a thin aluminium filter. Rodent ulcers are easily cured by radium or X-rays, but *lupus vulgaris* is more effectively treated by ultra-violet radiation. Acne and hyperidrosis greatly benefit by the application of small, repeated doses of X-rays. Exophthalmic goitre needs prolonged treatment and in acute cases rest in bed is essential. Tubercular glands respond slowly to radiation and may become quiescent, but, in the author's experience, are seldom completely cured. He advises removal while the glands are in the quiescent stage. Fibro-myomata of the uterus are benefited and the patient rendered comfortable, the tumours diminishing in size and the hemorrhage becoming arrested.

(199) The Pyloric Sphincter.

C. W. MCCLURE AND L. REYNOLDS (*American Journal of Roentgenology*, April, 1921) present a series of observations on the behaviour of the pyloric sphincter in the normal individual. Most of the work previously reported has been done on animals. From experiments on animals the "acid control" theory of Pawlow and Cannon was evolved. In man it is possible to study the sphincter by fluoroscopic means. When this is done, the pyloric sphincter is found to be always closed, except when food is passing from the stomach into the duodenum. The pylorus always opens as a peristaltic wave reaches it, but it requires forcible palpation to press food through it at other periods. No difference in action is noted when different foodstuffs are taken. Carbohydrates, fats and proteins, whether separately or in combination, commence to leave the stomach within

three to ten minutes and food passes into the duodenum with the arrival of each peristaltic wave. Beyond producing some irritation, the introduction of hydrochloric acid into the duodenum through the duodenal tube has no effect on the sphincter and neutralization of the duodenal contents does not affect the closure of the sphincter. The authors conclude that acid control theories do not apply in man and that in all probability there is some other finely adjusted mechanism in the antral region of the stomach which controls sphincter action.

(200) Newer Röntgen Ray Therapy.

M. J. SITTENFIELD (*American Journal of Roentgenology*, May, 1921) records his personal experience in the application of the newer Röntgen ray therapy to cancer. All radiation therapy aims at a complete inhibition of the disease, with, if possible, a maintenance of function. The failures of Röntgen therapy have been due to an insufficient penetration of hard rays and also to the lack of accurate measurement of the dosage actually reaching the diseased area. Some of the obstacles have been overcome by the possibility of applying more penetrating rays from the larger machines recently constructed and the electroscope and ionto-quantimeter have supplied means of measurement. In one case of carcinoma of the cervix the patient was given a radiation dose for two hours on four consecutive days, instead of a continuous sitting for eight hours, as is the practice in Bumm's clinic. The focal distance was 50 cm. and the portals of entry measured 15 cm. by 18 cm. The rays were filtered through 0.5 mm. of zinc and 1 mm. of aluminium. In addition, 50 mg. of radium element were introduced into the cervix for 50 hours. The reaction was not severe and the patient gained weight and was free from disease, as far as clinical examination could detect, after many months. With the above settings of the machine, it takes an hour to give an erythema dose through a 1 mm. copper plate.

(201) Radiation Absorption.

GIAAHINA FAILLA (*American Journal of Roentgenology*, May, 1921) describes a series of investigations undertaken for the purpose of determining the absorption of radium radiations by various tissues when different thicknesses of metallic filters are used. For deep radiation a primary metallic filter should be used, with a secondary light filter to absorb any radiations emanating from the primary filter. Beyond a certain point additional filtration increases the penetrative power, but considerably decreases the total amount of the radiation reaching the tumour. With the exception of the lungs, the absorption by various tissues varies but slightly and the absorption of highly penetrating rays by bone has little effect in reducing the amount of radiation reaching a tumour on its distal side. Various experiments are described.

British Medical Association News.

SCIENTIFIC.

A MEETING of the New South Wales Branch was held on July 29, 1921, at the B.M.A. Building, 30-34, Elizabeth Street, Sydney, Dr. FOURNESS BARRINGTON, the President, in the chair.

Median Prostatic Bar.

DR. S. HARRY HARRIS read a paper entitled "*Prostatisme sans Prostate, or the Median Prostatic Bar*" (see page 368).

DR. R. J. SILVERTON said that he had enjoyed listening to Dr. Harris's excellent paper. He agreed with him in regard to the importance of a more frequent use of the cystourethroscope in the diagnosis of prostatic lesions than was commonly made of it. Turning to the treatment of the condition, he admitted that he had not felt quite at sympathy with the idea of an intra-urethral operation. In the first place, not enough pathological tissue was removed as a rule. He added, however, that Dr. Harris's technique was admirable and appeared to remove this objection. In the second place, bleeding might occur and might become serious. He would rather favour the open operation, with the patient in the Trendelenburg position. After the bladder had been opened, the pathological tissue removed under the guidance of the eye and complete hæmostasis obtained by suture, the bladder wound was completely closed and a catheter was tied in for a few days. This procedure appeared to him to be a more scientific surgical operation. In a few cases Young's prostatic punch operation was undoubtedly a good operation. The ideal anaesthesia for intra-urethral operations was the sacral nerve technique of spinal analgesia.

DR. HARRIS said that two objections had been urged against Young's operation. The first was that the removal of the pathological tissue was not complete and the second was that hæmorrhage was likely to occur. He claimed that in properly selected cases his modification of Young's punch operation enabled the surgeon to remove all the pathological tissue. The risk of hæmorrhage was undoubtedly real, but his own series of cases revealed that serious bleeding was rare. When this did occur, it was only necessary to open the bladder suprapubically and to insert a catgut suture in the neck of the bladder. This had been necessary in three cases out of 44.¹ The other 41 patients treated by the punch operation had been saved the necessity of a suprapubic operation, which was the alternative method of treatment. If the precautions detailed in his paper were taken, especially in regard to post-operative retention of urine, he believed that all risk from post-operative hæmorrhage would disappear.

Cancer of the Rectum.

DR. W. J. STEWART MCKAY read a paper entitled "*A Simplified Sacral Proctectomy*" (see page 365).

DR. JOHN FLYNN said that anyone who had had the opportunity of verifying the anatomical points discussed by Dr. Stewart McKay, would agree with him as to their importance in this operation. The question arose, however, whether any perineal or sacral operation, however excellently performed, was the best for the patient. There was scarcely any subject in surgery in which there was less unanimity among authorities in recent years than that of cancer of the rectum. Differences of opinion existed in regard to the best method of surgical intervention, the mode of extension, the regions most liable to recurrence and the expediency of preliminary colostomy. Harrison Cripps held that 90% of rectal cancers were situated within 15 cm. of the anus and could therefore be dealt with from below. Miles, on the other hand, had decided to abandon both the perineal and the sacral methods of excision and to rely on the abdomino-perineal method. This he did only after he had experienced nearly 100% of recurrences. Of 59 persons subjected to perineal and sacral excision, 58 recovered and of these 58 54 were known to have suffered from recurrences.

Dr. Flynn claimed that in no other connexion was

pathological teaching less in accordance with clinical experience. Sampson Handley's researches appeared to indicate that the lymphatics were involved for a considerable distance beyond the apparent margin of the disease. There was no reason to doubt his statements. Since many patients remained free from recurrence after a somewhat limited operation, it was reasonable to assume that Nature was in some way able to deal with isolated cancer cells after the removal of the primary growth. Dr. Flynn stated that eight years previously he had removed a portion of the pelvic colon from a female patient for a mass of cancer verified microscopically. That woman was at present hale and hearty. She had scarcely returned home when she had conceived. There was no palpable trace of any abnormality in the bowel and not even the lateral anastomosis was palpable.

There were a few other points in the anatomy of the region to which attention might be called. The first was the very poor anastomosis between the last sigmoid artery and the superior hæmorrhoidal artery. Tension on this anastomosis when a perineal or sacral anus was being made had often caused gangrene of the bowel below it. The second point, emphasized by Ball, of Dublin, was that the *levator ani* and the *sphincter ani* could be opened up on each side by cutting in front and behind, leaving their nerve supply intact. If these incisions were afterwards sewn up to pull down the intestine, the anal function would remain undisturbed. The third point was that the correct interpretation of the anatomy of the rectum was to be derived from its embryology. It was divisible into the terminal sigmoid, rectum proper and the anal canal. The anal canal of Simmington had its origin in the *proctodæum* or skin infold. It was lined with pavement epithelium and had no mucous glands. The cancer that sprang from it was squamous-celled epithelioma. The rectum proper was a highly differentiated part of the hind gut named by Wood-Jones the post-allantoic gut. The terminal sigmoid was the end of the hind gut. The last five centimetres of the sigmoid and the first 3.75 cm. of the rectum had been termed by Mayo the recto-sigmoid. This was surgically important, because carcinoma was found more frequently in these 8.75 cm. than in any corresponding part of the gastro-intestinal tract, with the exception of the pyloric end of the stomach. In an investigation of 100 specimens of cancer of the rectum and recto-sigmoid carried out at the Mayo Clinic, the recto-sigmoid was involved in 63, the rectum proper in 30 and the anal canal in 7. The recto-sigmoid was important in other respects. It possessed a definite mechanism, which retarded the faecal current and prevented its continuous progress into the rectum. The mucous lining, thrown into longitudinal folds, in striking contrast to the circular folds of the sigmoid immediately above, bore a remarkable resemblance to the columns of Morgagni. According to Keith, impulses were collected in certain neuro-muscular nodes in this situation and correlated. Failure of this correlation resulted in that weird condition, Hirschsprung's disease or so-called idiopathic dilatation of the colon.

DR. T. H. FIASCHI, V.D., D.S.O., designated Dr. McKay's operation as a neat method and his anatomical observations as interesting and original. As Dr. Flynn had wisely said, there was much difference of opinion in regard to the treatment of malignant disease of the rectum. After many years he had come to the conclusion that the abdomino-perineal method was the best. He admitted that this procedure had an immediate fatality greater than that of Dr. McKay's operation. He claimed, however, that it left the patient in a better position later on. He questioned whether the patients remained continent after the conservative operations. Of all troubles, that of having an incontinent anus in the natural position was one of the worst that could be produced. He held, further, that the probability of an extension of the growth after conservative operation was great. He always followed the technique described by Quénu closely. In conclusion, he said that he was disinclined to go back to the less radical operation.

DR. T. W. LIPSCOMB related his experience of two cases in which Sir Alexander MacCormick had operated by the abdomino-perineal method. It seemed to him that, even in relatively simple cases, the affected glands might be high up and would not be readily reached by Dr. McKay's opera-

¹ Since the meeting, seven additional punch operations have been performed, making a series of 51 cases without mortality.

tion. Sir Alexander performed an extensive removal, even in the simplest and earliest cases. In one patient the symptoms had been present only for a few months. Dr. Lipscomb would not feel inclined to trust the lower operation. In addition, he had found that an artificial anus in the inguinal region could be attended to with comparative ease.

Dr. Worrall pointed out that cancer of the pelvic colon remained local for a very long time. He referred to the fact that some patients had been operated upon by simple excision as long as eleven years ago and were still alive. He had operated upon a patient twelve months previously in whom the mass was situated in the region of the splenic flexure. This patient had done well. The three-stage method had been adopted. The experience he had gained in the course of a long career induced him to favour a purely local operation for malignant disease of the pelvic colon when discovered in the course of an operation for some other pathological condition.

Dr. McKay, in his reply, said that he carried out a preliminary abdominal section in every case a fortnight before. An artificial anus was made in the left side. At the preliminary operation he ascertained whether there were any enlarged glands. He did not attempt the removal of the rectum if the glands were involved to any extent. Cancer of the rectum seemed to remain localized in the bowel for quite a long time in many cases. At times it was still limited to the intestine after nine, ten or even twelve months. He liked Miles's operation and thought that it was the best of the abdomino-perineal operations.

He claimed permanency for his results. One of his patients was still alive 23 years after the operation, while another was alive ten years after the operation. If the growth had not escaped from the bowel, the perineal operation sufficed. If it had spread beyond the bowel, he refused operation.

Cancer of the Pelvic Colon.

Dr. RALPH WORRALL read notes on cases of cancer of the pelvic colon complicating gynaecological operations (see page 376).

Dr. FOURNESS BARRINGTON stated that Murphy's button was useful for the union of the colon, but it was not always at hand. If no mechanical contrivance were available, satisfactory results could be obtained with a circular suture. When the malignant disease was situated low down in the pelvic colon, he preferred to do without Murphy's button. In these cases the technique described by Rutherford Morrison could be recommended. He congratulated Dr. Worrall on his cases.

A MEETING of the Queensland Branch was held at Ipswich on June 3, 1921, Dr. A. GRAHAM BUTLER, the President, in the chair.

Acne Vulgaris.

Dr. J. A. CAMERON showed a young returned soldier who was suffering from acne. Vaccines had proved useless. A single dose of intramine had provoked a marked reaction, which was followed by improvement. The Wassermann test had not been applied.

Dr. E. S. MEYERS said that he had seen this man on board a transport returning to Australia. His condition at the time of the meeting was better than it had been.

Arterio-Venous Aneurysm.

Dr. CAMERON also presented a young man who had been wounded at Pozieres. He had an arterio-venous aneurysm, with paralysis of the right arm. He also showed a young man who had received a gun shot wound in his pericardium. The bullet had been removed by operation. The patient had recovered his previous good health.

Lead Poisoning.

Dr. M. S. PATTERSON showed a young woman, aged 26 years, who had had convulsions when two years of age and severe lead poisoning when five years of age. The right hand was practically paralysed and there was pseudotalipes of both feet. The eye were normal and the urine did not contain any albumin.

Splenic Tumour.

Dr. PATTERSON then presented a man of 60 years, who had noted seven years before a mass in his abdomen. On examination it was found that the lower border of the spleen lay half way between the umbilicus and the iliac crest and extended forward to the level of the umbilicus. There were no other symptoms, except vomiting and a dragging feeling in the abdomen. The patient had been able to work hard and had not been out of Ipswich. No change in his condition had taken place during the past five years.

Tumour of Pancreas.

Dr. J. L. COONEY showed a man, aged 73 years, who was jaundiced and had lost 12.7 kilograms in weight in the course of three weeks. A mass had been discovered in the region of the pancreas. The urine contained bile, but no albumin.

Amœbic Dysentery.

Dr. J. V. DUHIG read some notes for Dr. S. F. McDONALD on endemic amœbic dysentery in the wife of a returned soldier.

Syphilis of Soft Palate.

Dr. E. CULPIN, in recording two instances of syphilitic ulceration of the soft palate, said that he had found that syphilis very frequently attacked the throat. He had seen the two patients on the same morning. They were about the same age; both were males, were married and had four or five children. Their wives and children were said to be healthy. Syphilitic infection was denied by each, although one of them had admitted after much questioning that he had had two small sores on the penis which he had treated with calomel powder and which had healed in two or three weeks. The first patient had been sent to Dr. Culpin for a special report on the condition of the throat. He had made an application for compensation, on the ground that the throat condition had been attributed to a slight injury to his hand incurred while he had been at work some months previously. The claim had been supported by medical certificates. The injury consisted of abrasions and bruising of the hand on June 16, 1920. He remained away from his work for a few days. Later he knocked his hand again and did not work for three weeks. He stated that during this time he had "blisters" all over his body. About the end of July he had a pain in his head, followed by a nasal discharge. On September 20, 1920, he had been told that he had quinsy. He recognized that this diagnosis was erroneous, as the abscess did not break, like an ordinary quinsy. Later he sought further advice and was treated for several months with X-rays, the throat condition having been diagnosed as rodent ulcer. On March 18, 1921, when Dr. Culpin saw him, the right side of the pharynx was practically normal. On the left side the palate had the appearance as if it had been cut away. There was a perforation just above the tonsil. The tonsil was enlarged and covered by a thin, frothy exudation. It looked as if the upper pole had been punched out. A Wassermann test was carried out and a strong reaction obtained.

The second patient complained of having had enlarged glands in the neck two years previously. He had been tested with tuberculin, but no evidence of a tuberculous lesion had been obtained. A year later a mass had been removed from his left axilla at the Brisbane General Hospital. In the hospital records the growth was described as a lipoma with some glands of a carcinomatous appearance. Two months before he was seen by Dr. Culpin, he had been treated for a septic throat in the country. His doctor had advised him to consult a specialist. When seen on March 19, 1921, there was still some enlarged glands on both sides of the neck. The right side of the pharynx was apparently normal. The left side of the soft palate had the appearance of having been cut away. There was a perforation just above the tonsil. The tonsil was covered by a frothy secretion. As in the other patient, it looked as if the upper pole had been punched out. He had pyorrhœa. The tonsil was acutely inflamed and there was active ulceration of the wall of the pharynx behind the tonsil. Dr. Culpin explained that this was a favourite site for syphilitic ulceration. There was considerable dysphagia. Dr. Duhig had reported that no spirilla of Vin-

cent's angina had been detected. The Wassermann test yielded a strong reaction. The dysphagia was rapidly relieved by local applications of silvol and the specific condition responded well to specific treatment. Dr. Culpin drew attention to the similarity of the two cases; in both the family history was unlike that of syphilis, while the likeness to malignant disease was striking. The Wassermann test had not been carried out in either patient. In all doubtful cases, this test should be applied. In the event that this could not be carried out, anti-syphilitic treatment should be used. It should, however, be remembered that there was a danger if iodides were given for tuberculous disease of the larynx.

Colles's and Pott's Fractures.

DR. E. D. AHERN made some observations on Colles's and Pott's fractures. He described the anatomy, the treatment and the bad results which frequently followed these conditions. He illustrated his remarks by skiagrams.

DR. R. A. MACLEOD said that the main object in the treatment of Colles's fracture was the reduction of the fragments. The lower fragment should be pressed into the cancellous tissue and to and fro movements employed until it became free. In regard to Pott's fracture, the bad results were due to the fracture of the scaphoid and the astragalus.

DR. A. H. MARKS referred to the Dublin teaching in connexion with Colles's fracture. If the patient were an old woman and there were definite impaction, the fracture should be left alone. Active and passive movements and massage might be applied.

DR. A. V. MEEHAN held that pulling the hand in the reduction of Colles's fracture was mechanically unsound. With Jones's method it was easy to reduce the displacement, even a late as five weeks after the injury. The problem lay in the complete reduction. When this had been accomplished, malleable metal splints with a spiral twist outwards were used for the dorsum, together with a short palmar splint. Early movement and massage should be initiated. Similarly, in Pott's fracture the most important part of the treatment was the reduction. The backward displacement should not be overlooked, as this produced limitation of flexion. The process of union occupied a longer time than that given in the text-books. The patient was allowed to walk too soon and, as a result, there was often a recurrence of the eversion. An outside iron, with an ankle strap, should be used until the callus was no longer tender.

DR. E. S. MEYERS contended that the worst results were seen in hospitals, because of the lack of interest evinced in fracture cases.

DR. GRAHAM BUTLER referred to the need for an anæsthetic in order that complete reduction might be assured.

DR. E. D. AHERN, in his reply, mentioned the necessity of flexing the knee for all fractures below that joint. When the fracture had been set, the leg could then be gradually extended. He considered that the backward displacement of the foot depended on the separation of the malleoli. He preferred to raise the inner side of the boot to employing an iron splint.

MEDICO-POLITICAL.

THE ORGANIZATION COMMITTEE OF THE VICTORIAN BRANCH COUNCIL desires to call the attention of members to the position in regard to the Manchester Unity Independent Order of Oddfellows and to ask them not to accept medical lists from the lodges of this Order. The Manchester Unity Independent Order of Oddfellows is the only order not in agreement with the Victorian Branch. It is endeavouring to hold together the medical institutes which were established at the beginning of the dispute between the friendly societies and the Victorian Branch for the purpose of forcing the hands of the medical profession to relinquish their claim for an equitable adjustment of the conditions of lodge practice. It is the opinion of the Council of the Branch that this Order will not be able to stand out against the Wasley Award if the members of the Branch hold loyally together and if they regard all members of the Manchester Unity Independent Order of Oddfellows as private patients.

NOMINATIONS AND ELECTIONS.

THE undermentioned have been elected members of the New South Wales Branch of the British Medical Association:

COOKSON, HENRY GEORGE DOUGLAS, M.B., 1920 (Univ. Sydney), Royal North Shore Hospital, St. Leonards.

MCADAM, FRANCIS VICTOR, M.B., Ch.M., 1921 (Univ. Sydney), 29, Alt Street, Ashfield.

NIMMO, JOHN ROBERTSON, M.B., 1921 (Univ. Sydney), Narrandera.

THOMAS, MERVYN HETHERINGTON, M.B., Ch.M., 1921 (Univ. Sydney), Royal Prince Alfred Hospital.

ANDERSON-STUART, ARCHIBALD PRIMROSE, M.B., Ch.M., 1921 (Univ. Sydney), Fairfax Road, Double Bay.

THE following medical practitioners have been elected members of the Queensland Branch of the British Medical Association:

BRODIE, ROBERT CHARLES ESPINASSE, M.B., B.Ch., 1921 (Univ. Melb.), Ipswich Hospital.

MCCLEAN, JAMES ROBERT, M.B., 1920 (Univ. Sydney), Atherton.

O'SULLIVAN, JOSEPH ERNEST, M.B., Ch.B., 1913 (Nat. Univ. Ireland), Wondal.

THE WAR MEMORIAL FUND IN VICTORIA.

THE following have contributed to the War Memorial Fund of the Victorian Branch of the British Medical Association: William Boyes, E. Champion, M. L. Coutts, R. M. Downes, Constance Ellis, W. A. James, Neil McColl, H. Mitchell, Edward Ryan, Third Light Horse Field Ambulance.

Public Health.

THE PLAGUE OUTBREAK.

BULLETIN No. 7, bearing the date October 14, 1921, contains a summary of the measures in operation for the prevention of rat migration from infected ports in Australia. These measures include the fumigation of the vessels, trapping and poisoning of rodents, the rejection of fruit, vegetables and other merchandise not enclosed in rat-proof containers, the medical inspection of all persons before a vessel leaves the Queensland port and again on its arrival at any other Australian port, the exercise of surveillance for seven days of the passengers and crew of all vessels aboard of which a person suffering from plague has travelled, the institution of wharf patrol and so on. Quarantine Regulations Nos. 61 to 66 are being strictly enforced.

Transmission of Specimens.

A supplement is attached, giving instructions concerning the collection and packing of material for bacteriological examination in cases of suspected plague. In regard to living human beings, pus or fluid from buboes should be aspirated with a syringe or collected after incision on agar slants; portions of affected tissues removed at operation should be enclosed in sterilized, securely stoppered bottles. Blood specimens should be sent in sterilized glass ampoules or test tubes sealed up. Lastly, cultures of suspected organisms on agar may be submitted. In the case of *post mortem* material, affected tissue, preferably bubo, lung and spleen, should be enclosed in sterilized glass bottles securely stoppered. When rodents are sent for examination the whole animal should be enclosed in a fruit preserving jar. No antiseptic or preservative should be added. If decomposition is feared, the specimen should be placed in a sealed container and this, in turn, surrounded by ice in a large wooden container. All specimens should be plainly marked, preferably by ordinary pencil, showing the date and their exact sources. An extra wrapping of cotton wool or other absorbent material should be used to prevent leakage of

fluid from the container in the event that the glass be broken. Cultures and tissues cannot be sent by mail. The material should be sent to the State Health Department Laboratories in Western Australia, Tasmania and Queensland, to the Adelaide Hospital Laboratory, to the Commonwealth Serum Laboratories, to the Institute of Tropical Medicine at Townsville or to the Commonwealth Health Laboratories at Thursday Island and Darwin.

Plague in Rats.

During the week ended October 8, 1921, 1,882 rodents were destroyed and examined in Brisbane. Seventeen were found to be infected. Six of the infected rats were found in premises in the city, including a private hospital in Wickham Terrace, an hotel in Elizabeth Street, the store of a pastoral produce merchant in Mary and Felix Streets, a leather merchant's warehouse and a photographic supply shop in Queen Street. Six of the infected rats were found in South Brisbane; one on the road, four in the premises of a milling company and one on a wharf. The remaining five were found in Valley.

It is stated that 30 rats examined at the Institute of Tropical Medicine at Townsville up to October 3, 1921, had been found to be infected. Of 22 smears received from Townsville on October 6, 1921, four revealed the presence of *Bacillus pestis*.

On October 6, 1921, smears from 64 rats were examined from Cairns. No plague bacilli were found. Of the rats destroyed at Ipswich, two were found to be infected.

Plague in Man.

During the week ended October 8, 1921, one person suffering from plague was removed to the Wattlebrae Isolation Hospital in Brisbane. The patient had been employed on the premises of the milling company in South Brisbane where infected rats had been found.

Three cases of plague were notified in Townsville during the week under review. The first patient was a barmaid, aged 21 years, who was employed at an hotel where seven infected rats had previously been found. The girl died on October 3, 1921. The second patient was a coloured man, residing at a boarding-house. The infection was notified on October 4 and the man died on the following day. The third patient was an aboriginal woman. In addition, a man, aged 74 years, was removed to hospital suspected to be suffering from plague on October 7, 1921.

In Cairns, two patients were reported to be suffering from plague. The first was a woman, aged 25 years, who was admitted to the district hospital on October 3 and was subsequently found to be infected with plague. The second patient was a boy, aged 16, who was isolated on October 8, 1921.

In the Bulletin No. 8, issued on October 18, 1921, the following information is conveyed:

The total number of cases of plague in human beings up to October 15, 1921, was 24. Of these, eleven were fatal. In addition, there were two suspicious cases.

In Brisbane, six more infected rats had been discovered since the issue of the last Bulletin. One infected rat was caught in Maryborough. The smear was sent to the Commissioner of Public Health of Queensland in Brisbane and *Bacillus pestis* was found on October 13, 1921.

A report is being investigated that 80 dead rats had been found in a mill at Ingham. Seven infected rats were examined in Townsville on October 14 and 15, 1921. One infected rat was found in Cairns on October 15, 1921.

Rat destruction is proceeding at Thursday Island, in Sydney, in Newcastle and in Western Australia. No infected rats have been discovered during the period covered by the report.

A further infected rat has been found on board the *Bombala*. Trapping and poisoning are being carried out. As soon as the vessel is empty, she will be fumigated throughout.

Fuller particulars of the recent human infections are given in this Bulletin.

BULLETIN No. 9 was issued on October 21, 1921. It contains a further record of the spread of bubonic plague among rodents and human beings up to October 20, 1921.

In Brisbane there were two further infections in adult males employed in the city. Seven infected rats were found in Brisbane and South Brisbane.

During the week ended October 15, 1921, there were two patients still under treatment, there was one patient freshly admitted at Wattlebrae and three suspects.

During the same week 2,078 rodents were examined and twelve were found to be infected.

The Commissioner of Health of Queensland reported on October 20, 1921, that a boy in Toowoomba was suffering from plague.

The record from Townsville shows that three further cases of plague occurred in human beings during the week ended October 15, 1921, and that two further cases were notified on October 19, 1921.

Between September 21, 1921, and October 13, 1921, 38 infected rodents were taken in Townsville. Of these, 26 were *Mus decumanus*, 11 *Mus rattus* and one mouse.

Reports have been received that rats had died in large numbers at Innisfail and at the sugar plantations on the Babinda Line.

In Cairns there were three deaths from plague of human patients. The total number for the week was nine. Only one infected rat was found in the town.

A suspected case of human plague was reported at Port Douglas on October 19, 1921.

After much difficulty *Bacillus pestis* was isolated from rats taken on board the *Cooma* in Melbourne on September 26, 1921. The rats were in an advanced stage of decomposition and the isolation of the Gram-negative organism was rendered difficult by the presence of a rapid growing bacterium, probably *Bacillus proteus*. The vessel was fumigated throughout and carefully examined before she sailed from Melbourne.

NOTIFIABLE INFECTIVE DISEASES.

THE following infective diseases have been proclaimed notifiable within the meaning of the *Health Act, 1919*, of Victoria: Anthrax, bacillary and amebic dysentery, lethargic encephalitis and tetanus.

THE FOURTH CONGRESS OF THE FAR EASTERN ASSOCIATION OF TROPICAL MEDICINE.

THE fourth Congress of the Far Eastern Association of Tropical Medicine was held at Batavia, Java, from August 6 to August 13, 1921. Among those who attended were delegates from India, China, Japan, Formosa, Manila, Siam, Macao, Straits Settlements, Federated Malay States and Holland. Australia was represented by two delegates, one of whom represented the Commonwealth Government, while the other was the delegate of the Queensland Branch of the British Medical Association. The Queensland delegate, Dr. J. E. Thomson, Government Health and Quarantine Officer, Lower Perak, Federated Malay States, has furnished a report from the following information has been obtained:

At a preliminary meeting Dr. M. de Vogel, Chief of the Civil Medical Service, was elected President of Congress, Major-General A. M. Neeb, Chief of the Military Medical Service, was elected Vice-President and Dr. O. Deggeler Secretary and Treasurer.

The Congress was opened in the Palace at Rijswijk by the Governor-General of the Netherlands Indies, who delivered an address in English. His Excellency said he welcomed the delegates and members as pioneers in a great sphere of work, which covered hospitals, laboratories and work in the open field. They were workers for the benefit of humanity and the harmonious manner in which the medical profession throughout the world had worked in the past, was evidenced by the results which had been obtained. The Far Eastern Association of Tropical Medicine had been brought into existence by American medical men, to whom all thanks were due. When the Americans conquered the Philippines they discovered a university in Manila which had been in existence since the days of Magellan. This university, the oldest in the Far East, inaugurated in 1908 the Philippine Medical School and

two years later Dr. Paul C. Freer, Director of the Bureau of Science, organized a medical conference, of which he was elected president. That conference had grown into the present Association. The first Congress was followed by a second one, which was held in Hong Kong in the year 1912. The third Congress was held in Saigon and included representatives of the French medical profession in Indo-China. The Congress at Saigon had had far-reaching effects, which would have materialized much more quickly had it not been for the outbreak of the great war.

The President, in his opening address, stated that during the war Asiatic and African troops had imported into Europe many new forms of disease, formerly unknown in that continent. Of the many tropical diseases which had found their way into Europe, perhaps the most common of all was malaria. For the study of that disease special schools of study had been opened. Much credit was due to those who had investigated the mosquito problem in the Panama Canal zone, the Federated Malay States, the Philippines and the Dutch East Indies. It was now generally admitted that the presence of certain animals and plants corresponded with the presence of malaria in its acutest form, buffaloes being perhaps the most frequent medium in the spread of infection. Rice fields were also a source of much danger, as the mosquito bred rapidly in those areas.

The members were afterwards entertained by His Excellency the Governor-General at the Palace, the grounds of which were beautifully illuminated. About 850 guests were present. This concluded the official opening of the Congress.

The remaining days were devoted to lectures and discussions on the various tropical diseases by various delegates and members and to visits to the chief hospitals, laboratories, quarantine and other institutions connected with tropical medicine and research work.

Special interest was taken in a visit to the Pasteur Institute at Weltevreden, where a demonstration was given of the preparation of small-pox vaccine in large quantities. The efficiency of the vaccine is maintained in the tropics by the use of buffaloes, so that its potency is retained during transport to remote districts or countries. This excludes the necessity of packing in cooling material of any kind, a great advantage in all warm climates. The vaccine is rapidly tubed in batches of 150 tubes. The preparation of cholera vaccine in bulk, sufficient to supply the whole population of the Dutch Indies (about 45 millions), was followed with great interest.

A demonstration was given of the different species of poisonous snakes in the Dutch East Indies, the simple method of extracting their poison, the subsequent drying of the poison and the method of preparing a polyvalent serum against the *Colubridæ* and *Viperidæ* now used there.

The Institute's department for the treatment of hydrophobia, which is a prevalent disease in Java, was also visited and a demonstration given of the preparation of an emulsion of the virus and its subsequent inoculation into monkeys. The treatment of patients after the method of Högyes excited keen interest.

A visit was made to the islands of Kuiper and Onrust, on which is a quarantine station containing a plant sufficient for the simultaneous disinfection of between 3,000 and 4,000 pilgrims returning from Mecca with their effects. The Central Military Laboratory, the Central Civil Hospital, the Military Hospital, the Hospital of the Royal Packet Steam Ship Company, the municipal abattoirs and slaughter-houses, local irrigation works and many other places of interest were also visited.

At the final meeting of the Congress it was decided that the next Congress be held in Singapore in 1922.

Correspondence.

A CORRECTION.

SIR: I should be obliged if you would give me space to make a correction in the report (THE MEDICAL JOURNAL OF AUSTRALIA, October 22, 1921) of a speech made by me on

the subject of area medical officers' pay at the recent annual meeting of delegates.

Referring to attendance on permanent military officers, you report me as saying: "Many of these officers were even more troublesome than lodge patients." I did not express myself in this rather offensive way. What I did say (or, at any rate, intended to convey) was that: "Many of these officers expected far more attention than lodge patients did, while the area medical officer was not paid nearly so well in proportion to the work he did as the lodge medical officer was." I may say that I am not now an area medical officer, so that I am not personally concerned in the matter.

Yours, etc.,

C. H. E. LAWES.

Petersham, October 24, 1921.

ARNOTT'S BISCUITS.

SIR: I am sorry to see in THE MEDICAL JOURNAL OF AUSTRALIA of October 15 a recommendation of "Milk Arrow-root" biscuits as an article of diet for children. I have always regarded biscuits made from finely ground flour as injurious to children's teeth and have attributed some, at least, of the dental caries, which is so appallingly prevalent nowadays, to their use. They form a fine, tenacious paste, which fills up the cavities in or between the teeth and there undergoes gradual decomposition.

Yours, etc.,

A. JEFFERIS TURNER.

Brisbane, October 19, 1921.

Medical Matters in Parliament.

THE TUBERCULOSIS CLINIC AT BENDIGO.

ON October 12, 1921, the Honourable Sir Joseph Cook, in reply to a question asked in the House of Representatives, stated that the Prime Minister was at the time in Bendigo and would go into the matter of the establishment of a clinic in that city in connexion with phthisis and tuberculosis. Provision had already been made in the Estimates for the establishment of this clinic.

In the Victorian Legislative Assembly on October 19, 1921, Mr. L. J. Clough asked the Premier if his attention had been called to the statement of the Prime Minister that he was waiting for the estimate from the State Government in connexion with the establishment of a tuberculosis clinic in Bendigo.

The Premier, the Honourable H. S. W. Lawson, gave the following reply:

"The position in regard to the tuberculosis clinic, Bendigo, is as follows:

"(1) The Prime Minister offered to staff and equip a tuberculosis clinic at Bendigo, suggesting, at the same time, that if the State could provide a building the establishment of the clinic would be facilitated.

"(2) Two buildings—the old Supreme Court and the disused lying-in ward at the Benevolent Asylum—were inspected by Commonwealth officers and the latter was considered the preferable.

"(3) The Asylum Board of Management was written to and a reply has been received that the building will be made available.

"(4) As the Commonwealth is staffing and equipping the clinic, the question of an estimate from the State Government does not arise."

In regard to the conference dealing with the provision of compensation for men suffering from miners' phthisis (pneumokoniosis), the Honourable Samuel Barnes, the Minister for Mines, informed the House that a report had been submitted containing recommendations for a scheme of relief. The members of the conference, with the exception of the representative of the coal miners, had agreed to the scheme. Cabinet would give consideration to the recommendations as soon as possible.

Naval and Military.

APPOINTMENTS.

THE following appointments, promotions, etc., have been announced in the *Commonwealth of Australia Gazette*, Nos. 79 and 80, dated October 13 and 20, 1921:

Australian Naval and Military Expeditionary Force.

SECOND MILITARY DISTRICT.

Appointments Terminated.

MAJOR C. W. WHITING, 20th June, 1921.

CAPTAIN W. L. CALOV, 9th May, 1921.

Australian Military Forces.

FIRST MILITARY DISTRICT.

Australian Army Medical Corps Reserve.

HONORARY CAPTAIN W. T. O'SHAUGHNESSY is transferred to the Australian Army Medical Corps Reserve, Third Military District, 1st August, 1921.

SECOND MILITARY DISTRICT.

Australian Army Medical Corps.

LIEUTENANT-COLONEL W. M. HELSHAM, V.D., is transferred to the Retired List, with the honorary rank of Colonel, and with permission to wear the prescribed uniform, 1st July, 1921.

MAJOR A. Y. FULLERTON is transferred to the Retired List, with permission to retain his rank and wear the prescribed uniform, 1st July, 1921.

CAPTAIN T. R. E. DAVIS is transferred to the Reserve of Officers and to be Major, 1st July, 1920.

CAPTAIN W. J. STACK, D.S.O., is transferred to the Reserve of Officers and to be Major, 1st July, 1921.

CAPTAIN (provisionally and temporarily) W. C. McCLELLAND is transferred to the Australian Army Medical Corps Reserve and to be Honorary Captain, 1st July, 1921.

THE provisional and temporary appointment of CAPTAIN (HONORARY MAJOR) N. M. A. ALEXANDER is confirmed.

THIRD MILITARY DISTRICT.

Australian Army Medical Corps.

LIEUTENANT-COLONEL J. H. NATTRASS is transferred to the Unattached List, 31st August, 1921.

MAJOR P. G. DANE is transferred to the Unattached List, 1st July, 1921.

MAJOR F. D. JERMYN, V.D., and CAPTAINS J. G. DESAILLY, W. H. GODBY, J. F. AGNEW and A. E. TAYLOR are transferred to the Reserve of Officers, 1st July, 1921.

CAPTAIN (HONORARY MAJOR) J. A. Smeal and CAPTAIN E. R. CORDNER are transferred to the Reserve of Officers and to be Majors, 1st July, 1921.

CAPTAIN (provisionally and temporarily) F. W. GRUTZNER is transferred to the Australian Army Medical Corps Reserve and to be Honorary Captain, 1st July, 1921.

LIEUTENANTS (provisionally) L. W. JOHNSTON and T. M. HENDRY are transferred to the Australian Army Medical Corps Reserve and to be Honorary Lieutenants, 1st July, 1921.

LIEUTENANT-COLONEL C. C. MACKNIGHT, V.D., is placed on the Retired List, with the honorary rank of Colonel and with permission to wear the prescribed uniform, 1st July, 1921.

CAPTAIN S. C. JAMIESON, V.D., is placed on the Retired List, with the honorary rank of Major and with permission to wear the prescribed uniform, 1st July, 1921.

Australian Army Medical Corps Reserve.

HONORARY CAPTAIN W. T. O'SHAUGHNESSY is transferred from the Australian Army Medical Corps Reserve, First Military District, 1st August, 1921.

HONORARY CAPTAIN R. H. N. CONNELL is transferred to the Australian Army Medical Corps Reserve, Fifth Military District, 1st October, 1921.

FIFTH MILITARY DISTRICT.

Australian Army Medical Corps Reserve.

HONORARY CAPTAIN R. H. N. CONNELL is transferred from the Australian Army Medical Corps Reserve, Third Military District, 1st October, 1921.

SIXTH MILITARY DISTRICT.

Australian Army Medical Corps.

CAPTAIN V. R. RATTEN is transferred to the Reserve of Officers, 1st October, 1921.

Australian Army Medical Corps Reserve.

HONORARY CAPTAIN F. B. MARTIN is transferred to the Reserve of Officers and to be Captain, 1st October, 1921.

Proceedings of the Australian Medical Boards.

NEW SOUTH WALES.

THE undermentioned have been registered, under the provisions of the *Medical Act, 1912 and 1915*, as duly qualified medical practitioners:

GOLDSTEIN, ALEXANDER, M.B., Bac. Surg., 1911, Univ. Melbourne.

Additional Registration.

PERCY, CLARENCE ERNEST, Ch.M., 1921, Univ. Sydney.

WILLARD, FRANK TRENERRY, Ch.M., 1921, Univ. Sydney.

VICTORIA.

THE undermentioned have been registered, under the provisions of Part I. of the *Medical Act, 1915*, as duly qualified medical practitioners:

ADMANS, ALMA DOROTHY, M.B., B.S. (Melb.), 1921, 25, Park Street, East Brunswick.

BODY, JOHN HERBERT, M.B., B.S. (Melb.), 1921, 14, Rushall Crescent, North Fitzroy.

BUNTINE, RICHARD MURRAY, M.B., B.S. (Melb.), 1921, Caulfield Grammar School, Caulfield.

GOVAN, EDNA LYALL, M.B., B.S. (Melb.), 1921, 3, Muir Street, West Richmond.

HILL, GEOFFREY EGERTON, M.B., B.S. (Melb.), 1921, 137, Glenferrie Road, Malvern.

MATHEW, ALEXANDER CRAIGIEVAR, M.B., B.S. (Melb.), 1921, 69, The Grove, Coburg.

MILLER, ROY WILLIAM, M.B., B.S. (Melb.), 1921, "Ayr-le," Donald.

MORRIS, ETHEL REMFREY, M.B., B.S. (Melb.), 1911, Post Office, Sutherland, New South Wales.

NHILL, THOMAS VICTOR, M.B., B.S. (Melb.), 1921, Creek View, Runnymede.

PENDER, IAN BASIL, M.B., B.S. (Melb.), 1921, "Struan House," Narracoorte, South Australia.

ROCHE, THALIA ELLSBY, M.B., B.S. (Melb.), 1921, 38, Hotham Street, East Melbourne.

SHANASY, FRANCES LILLIAN, M.B., B.S. (Melb.), 1921, 7, Alma Road, Camberwell.

STAHL, ELEN IRENE, M.B., B.S. (Melb.), 1921, 40, Grove Road, Hawthorn.

WOOD, BERTHA, M.B., B.S. (Melb.), 1921, Room 5, The Block, Collins Street, Melbourne.

LAVERY, JOHN ANTHONY ERNEST ARTHUR, L. et L. Mid., R.C.P. et S. (Edin.); L.F.P.S. (Glas.), 1895, 697, Lygon Street, North Carlton.

VANCE, ERNEST SYDNEY GEORGE KILLEN, M.B., B.S., B.A.O. (Univ. Belfast), 1913, Navy Office, Lonsdale Street, Melbourne.

SCOTT, BERNARD CHARLES, M.R.C.S. (Eng.), 1882; L.S.A. (Lond.), 1883, c.o. G. E. Tait, Esq., Launching Place.

Additional Registration.

DAVIES, GEORGE VERNON, M.D. (Melb.), 1920.

DISHER, HAROLD CLIVE, M.D. (Melb.), 1921.

THE following notice appeared in the *Victorian Government Gazette* of October 19, 1921:

The President of the Medical Board of Victoria hereby calls on Dr. Robert Jamison, of Underbool, or elsewhere, to present himself before the Board at half-past three p.m. on Tuesday, the 8th November, 1921, at the Old Treasury Building, Spring Street, Melbourne, to show cause why his name should not be erased from the Medical Register of this State.

Books Received.

THERAPEUTIC IMMUNIZATION IN ASYLUM AND GENERAL PRACTICE, by W. Ford Robertson, M.D.; 1921. Edinburgh: E. & S. Livingstone; Demy 8vo., pp. 278. Price: 15s. net.

SYMPTOMATOLOGY, PSYCHOGNOSIS AND DIAGNOSIS OF PSYCHOPATHIC DISEASES, by Boris Sidis, A.M., Ph.D., M.D.; 1921. Edinburgh: E. & S. Livingstone; Post 8vo., pp. 448. Price: 21s. net.

DEVELOPMENTAL PATHOLOGY: A STUDY IN DEGENERATIVE EVOLUTION, by Eugene S. Talbot, M.S., D.D.S., M.D., LL.D.; 1921. Edinburgh: E. & S. Livingstone; Royal 8vo., pp. 435, with 346 illustrations. Price: 25s. net.

CHEMICAL DISINFECTION AND STERILIZATION, by Samuel Rideal, D.Sc. (Lond.), and Eric K. Rideal, D.Sc. (Lond.), M.A. (Cantab.); 1921. London: Edward Arnold; Demy 8vo., pp. 313. Price: 21s. net.

FLANNEL FLOWERS AND OTHER BUSH BABIES, by May Gibbs; 1921. Sydney: Angus & Robertson, Ltd.; Demy 8vo., pp. 24, profusely illustrated. Price: 2s. net.

Medical Appointments.

DR. J. MCKEE (B.M.A.) and DR. C. N. BENSON have been appointed Quarantine Officers in the Department of Health of the Commonwealth.

DR. G. H. BRANDIS (B.M.A.) and DR. L. P. BRENT (B.M.A.), who are not officers of the Public Service, have been appointed Quarantine Officers without examination, Class C, Professional Division, at Newcastle and North Head, respectively.

DR. W. F. L. LIGGINS (B.M.A.) has been appointed Government Medical Officer at Mungindi, New South Wales.

DR. OWEN FRANK PAGET (B.M.A.), of Perth, has been appointed a Justice of the Peace for the Perth Magisterial District, in lieu of the Fremantle Magisterial District.

DR. R. PALMERSTON RUNDLE (B.M.A.) has been appointed Medical Officer of Health by the Leonora-Malcolm Road Board and District Medical Officer and Public Vaccinator at Leonora, Western Australia.

DR. P. C. HIGGINS (B.M.A.) has been appointed Government Medical Officer at Cooroy, Queensland.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, *locum tenentes* sought, etc., see "Advertiser," page xxii.

HOSPITAL FOR INSANE, GOODNA, QUEENSLAND: Second Assistant Medical Superintendent.

HOSPITAL FOR SICK CHILDREN, BRISBANE: Permanent Medical Superintendent.

NEWCASTLE HOSPITAL: Resident Pathologist.

PRIME MINISTER'S DEPARTMENT: Medical Officer for Venereal Disease Work in the Territory of New Guinea.

SYDNEY HOSPITAL: Honorary Physician, Honorary Relieving Assistant, Ophthalmic Surgeon, and Clinical Assistant to the Ear, Nose and Throat Department.

NOTICE TO AUTHORS.

In July, 1919, the Directors of the Australasian Medical Publishing Company, Limited, determined that the cost of preparing blocks for the illustration of articles published in THE MEDICAL JOURNAL OF AUSTRALIA should be borne by the Company. Prior to this date the authors were required to pay for the blocks. We have the accumulation of seven years in our keeping. Authors who require the blocks for which they have paid, are requested to apply for them as soon as possible. It is proposed to destroy all unclaimed blocks on November 1, 1921.

Medical Appointments: Important Notice.

MEDICAL PRACTITIONERS are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429, Strand, London, W.C..

BRANCH.	APPOINTMENTS.
	Australian Natives' Association Ashfield and District Friendly Societies' Dispensary Balmmain United Friendly Societies' Dispensary Friendly Society Lodges at Casino Leichhardt and Petersham Dispensary Manchester Unity Oddfellows' Medical Institute, Elizabeth Street, Sydney Marrickville United Friendly Societies' Dispensary North Sydney United Friendly Societies People's Prudential Benefit Society Phoenix Mutual Provident Society
NEW SOUTH WALES: Honorary Secretary, 30 - 34, Elizabeth Street, Sydney	All Institutes or Medical Dispensaries Australian Prudential Association Proprietary, Limited Manchester Unity Independent Order of Oddfellows Mutual National Provident Club National Provident Association
QUEENSLAND: Honorary Secretary, B. M. A. Building, Adelaide Street, Brisbane	Brisbane United Friendly Society Institute Stannary Hills Hospital
SOUTH AUSTRALIA: Honorary Secretary, 3, North Terrace, Adelaide	Contract Practice Appointments at Renmark Contract Practice Appointments in South Australia
WESTERN AUSTRALIA: Honorary Secretary, 6, Bank of New South Wales Chambers, St. George's Terrace, Perth	All Contract Practice Appointments in Western Australia
NEW ZEALAND (WELLINGTON DIVISION): Honorary Secretary, Wellington	Friendly Society Lodges, Wellington, New Zealand

Diary for the Month.

- Oct. 31.—Victorian Branch, B.M.A.: Council Nomination Papers issued.
- Nov. 4.—Queensland Branch, B.M.A..
- Nov. 8.—Victorian Branch, B.M.A.: Final Day of Nomination for Election to the Council.
- Nov. 8.—Tasmanian Branch, B.M.A..
- Nov. 8.—New South Wales Branch, B.M.A.: Ethics Committee.
- Nov. 9.—Melbourne Pædiatric Society (Victoria).
- Nov. 10.—Victorian Branch, B.M.A.: Council.
- Nov. 11.—New South Wales Branch, B.M.A.: Clinical.
- Nov. 11.—Queensland Branch, B.M.A.: Council.
- Nov. 11.—South Australian Branch, B.M.A.: Council.
- Nov. 15.—New South Wales Branch, B.M.A.: Executive and Finance Committee.
- Nov. 15.—Illawarra Suburbs Medical Association (N.S.W.).
- Nov. 16.—Western Australian Branch, B.M.A..
- Nov. 18.—Eastern Suburbs Medical Association (Sydney).
- Nov. 18.—North-Eastern Medical Association (N.S.W.).
- Nov. 22.—New South Wales Branch, B.M.A.: Medical Politics Committee; Organization and Science Committee.
- Nov. 24.—South Australian Branch, B.M.A..

Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned.

Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

All communications should be addressed to "The Editor," THE MEDICAL JOURNAL OF AUSTRALIA, B.M.A. Building, 30-34, Elizabeth Street, Sydney. (Telephone: B. 4635.)